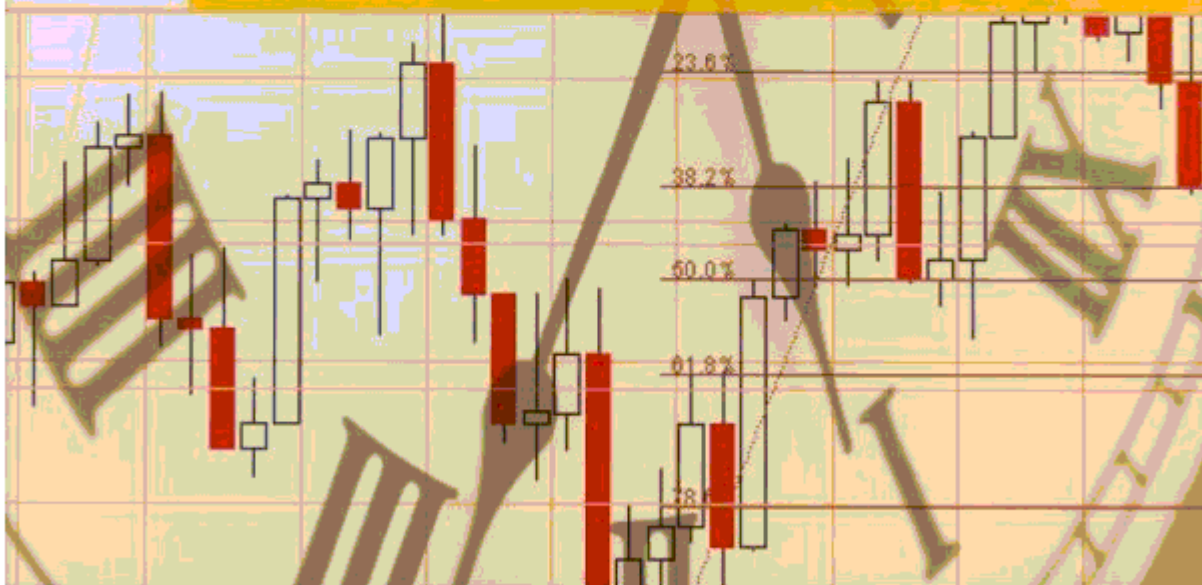


BREAKTHROUGH STRATEGIES FOR

# Predicting **ANY** Market

CHARTING ELLIOTT WAVE, LUCAS,  
FIBONACCI AND TIME FOR PROFIT



## JEFF GREENBLATT

foreword by Dawn Bolton-Smith

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**JEFF GREENBLATT**  
**FOREWORD BY DAWN BOLTON-SMITH**



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To my wife Jeanne, son Josh and my father  
Henry. They've always been there through good  
times and bad. This book is also dedicated to  
the memory of Beatrice Heffron.

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# FOREWORD

It is indeed a privilege to write this foreword for what I consider is the ultimate book on market timing. I first became aware of Jeff Greenblatt and the Fibonacci Forecaster as a result of an interview several years ago and took advantage of his brilliant free newsletter. I am still a subscriber and eagerly look forward to Jeff's continued impact on the industry with the publication of this book.

I became fully aware of the importance of timing in the markets after I made my initial stock market investments in 1960 as a complete novice. The broker said the market was high. I didn't know what it meant but was quick to find out in 1961 when the blue chips tumbled down as a result of the Holt Credit Squeeze. I had been buying in at the top of a nine year bull cycle! At that point, I knew I had to find out more about markets. I enrolled at the Mosman Evening College for a pilot course from the Sydney Stock Exchange. After several years of learning the basic fundamentals, P.E. Ratios, Dividend Yields, etc. I realized the missing factor was still the timing. Our group threw in five shillings each for a subscription to Trendex, a technical newsletter, and then studied Technical Analysis of Stocktrends by Edwards and Magee. This laid the foundation for an excit-

ing career path that I've enjoyed since 1964. In my career, I was the first technical analyst to be employed by an Australian Stock Broker. Later, I moved to commodities and foreign exchange.

I believe my hands-on experience of several booms and busts equips me to pass judgment on the value of Jeff's amazing contribution to technical analysis. I gave the first lectures in technical analysis for the Sydney Stock Exchange and have contributed regular articles in newspapers, newsletters, and futures magazines. I am also a founding member of the Australian Technical Analysts Association. My mentors over the decades have included Ian Notley, J. Welles Wilder, Dr. Harry D. Schultz, David Fuller, and Phyllis Kahn who made me aware of W.D. Gann. I consider Gann to be the most influential individual in market methodology, geometry, and the importance of timing in the markets. My own "claim to fame" was predicting the 1974 share crash and calling the bottom within four points using charts.

It is a daunting task when confronted by the incredible display of books all centered on markets and making money to determine which book is right for you. Jeff's book fulfills the gap left by many technical trading systems and will not be one to leave on the bookshelf. This book is one that can and should be frequently used for reference as the markets continue to trace out their intriguing patterns.

I am not an Elliottician; it is a methodology that I find too subjective and prefer to leave to others. I am, however, totally aware of the value of Fibonacci retracements, a feature that is in most software packages today and is highly respected by market participants. Jeff's integration of the Lucas Series is an added advantage and, I believe, a leap forward for timing techniques.

The book provides easy to understand text with excellent chart examples. He describes wave patterns and points out the mistake most Elliotticians make with triangles. He delves into when to expect these patterns with a methodology that is original to this work—the time bars usually confirm the pattern and most will complete in the correct number of Fibonacci or Lucas time bars.

An important section on Elliott waves provides explicit rules and takes you far beyond basic Elliott pattern recognition. Jeff shows that the time



elements exist on every chart in order to give you a total awareness of what market precision looks like. You are dealing with the specific language of the market—bull and bear phases in any degree of trend have unique characteristics.

The many splendid chart examples use candlesticks, which tell more about market behavior than basic line charts. Jeff explains that the best way to identify important turns is to combine the time element with the candlestick methodology. There is a special chapter devoted to this technique so that the reader can interpret the charts correctly in the overall context of market conditions.

The chapter on divergences points out that some of the biggest mistakes traders make is to prematurely pick tops and bottoms. Jeff covers how to differentiate between the waves with a special mention of MACD. In keeping with the theme of the book, Jeff covers *when* to expect divergences. Volume studies and moving averages are covered citing the importance of the 200 day simple moving average. Many times these moving averages, both the 20 and 50 day used by the big money crowd, line up with a Fibonacci retracement point, which is a good place for price action to hold.

The extremely important chapter on Fibonacci price projections leaves the academics and fundamental analysts behind. Jeff discusses how to make high probability price projections based on the natural tendencies of universal law. He looks at support and resistance lines as well as moving averages and many times the 50 or 200 day moving average will be within pennies of one of the Fibonacci retracement points.

There is a brilliant discussion on gold and gold stocks, which excited the market early in the decade. There are some wonderful examples for Fibonacci retracement techniques and the importance of market sentiment at these times. Another highlight of the book is the illustration of Gann's best trading advice; that the best trading opportunities come after the retracements of the first leg.

The chapter on advanced projection techniques reduces the subjectivity of Elliott by the use of the time factor. Repeatedly common Elliott waves don't work all the time and neither do common Fibonacci relationships. That's why this book is so valuable; the techniques discussed here will help

you develop from being an average trader to a good trader and will take your knowledge of charts from mediocre to great.

The whole point of the exercise is to demonstrate a different way of looking at the charts as opposed to the way classic Elliott has been taught over the past 75 years. As shown here, news events somehow manifest themselves at precisely the correct point in time on a price chart.

A special study on BHP, which is a very important stock traded in both United States and Australia, gives a complete analysis on both weekly and monthly time frames with some truly amazing calculations. Again, the whole idea of the book is to look at charts in new ways. Jeff can no longer look at a price chart without keeping track of the bars and his goal is to take you to this level of market precision.

Everything you need on technical basis has been covered and the new language will enable you to wait for better set ups. By drawing your extension lines and keeping track of the bars, you will come to anticipate turns with action not taken until the candles confirm your various price and time clusters. When they do—pull the trigger.

You will learn to trust the chart and the methodology and have the courage of your convictions to stick with the trade. What starts to happen over time is you are going to have lots of fun! The author knows—all this happened to him!

There is even a special chapter on Forex. If you rely exclusively on fundamental analysis you are likely to get killed, because while it gives you some idea of the larger trend, it is useless for specific entries and exits. The many new players to the Forex market need a sound foundation in order to understand how the markets work. Whilst the author disclaims his expertise in this market, his extensive research period has proven these very same cycles also work on currencies. The time differences in Forex are explained as is that better setups occur more frequently at certain times of the day. There are excellent charts on Australian Dollar including intra-day patterns among others. And, there are more timing clusters that have MACD divergences than any other covered in the book. These are wild swings with leverages of 1000-1 where you need to exercise caution; only this methodology can give you the confidence to navigate those kinds of waters.

Now on psychology—if your mind isn't right, there is no methodology in the world that will work. Chapter 10 focuses on the lessons learnt by the author from different mentors in field of psychology and mental toughness—priceless tools not only in trading but in life. History has shown us that people start out in trading to get rich with no formal training and think it is all very easy. They learn quickly it's not.

Most of the material and charts in this book needs to be studied for hours upon hours. That is the only way you are going to learn the true nature of how these financial markets really work. But once mastered, you will never look at a chart in the same way. You will have the potential to become very profitable and if you are already profitable, you will do even better. Potential means having the ability to do the right thing at the right time. There is a lot of noise out there and your biggest enemy besides yourself will be the maddening voice of the crowd. You need to listen to them yet ignore them at the same time and interpret what it really means.

When it comes to commodities, absolute fear is usually a top and in stock market, absolute fear a bottom. When the experts tell you stocks are going to the moon, it is time to think about short positions; but you still have to wait for the appropriate signal. Our minds need to be trained to be able to take trades intelligently in psychologically uncomfortable positions. The author's choice of the best work on the psychology of trading is *Trading in the Zone* by Mark Douglas. The other is *New Trading Dimensions* by Bill Williams. Each one prepares you to learn how to get into a "flow" state of mind to tune out all distractions, fears, and anxieties and to get in rhythm with your highest potential. This means getting rid of a fair degree of mental garbage.

This chapter is one of the finest I have read on the psychological aspects of trading with explanations of how to deal with some of the problems faced with pulling the trigger. To summarize, we need to know where we came from and where we are going. Trading is never going to be easy, but it can be simple, and this chapter should mentally equip you to participate.

The final chapter ties together some of the highest probability setups so you can start using this wonderful methodology right away. This is where the author congratulates you if you are still with him because the book is not an easy read and is not supposed to be. The dozens of charts are meant to be studied over and over until you get it. To make the money,

you have to be absorbed in the P-R-O-C-E-S-S. This means garnering a full and complete understanding how financial markets work—the goal of this book. Whether you are an Elliottician, moving average trend follower, volume studies practitioner, or any discipline, you are only dealing with “what to do.” This book will teach you “when” to do it. In short, you now have in your hands an incredible pattern recognition system, perhaps the best on the planet!

Mastering financial markets takes quite a bit of time and energy during and after trading hours. Jeff studies the cycles on the indices every single day to know what is going on. As repeatedly stressed in this work, you will need to study these charts and your own charts constantly in order to find the right set ups. It takes dedication and work, but if you put in the effort, you will find that this book will make you a better and more profitable trader because you will be fluent in the language of the market.

If I may make a bold prediction, I believe Jeff Greenblatt will be regarded as one of the true Market Masters of the 21st Century. This volume deserves a place on every trader and investors bookshelf.

*Dawn Bolton-Smith*

# ACKNOWLEDGEMENTS

Nature abhors a vacuum. Anything worthwhile happens only due to the efforts of others. In my case, I would like to thank the following people for their efforts along the way.

First of all, a special mention goes to Evan Greenberg. Several years back, as a caller I challenged him on 1510 KFNN in Phoenix, AZ. As opposed to getting mad, he invited me on his show for a full hour to talk about technical analysis. That took a lot of courage. That day, KFNN host Sinclair Noe gave me some of the best advice I've ever received in my life. He told me if there was something I wanted to do, I should just start 'doing it.' I started my Fibonacci Forecaster newsletter that day. Sinclair had me back on his show three years later and deserves credit for giving 'new blood' a chance.

In the early days, people like Gary Kaltbaum, Mark Leibovit and Sean Balog offered encouragement that kept me going.

Later on, it was Yelnick who included me in his excellent blog. The fact that he thought enough of my work to compare it to better known Elliot-

*ticians in the field helped get it to a broader and international audience.* The timing work you are about to read is a leading indicator and there was one rally I told my readership would end on a specific date a couple of weeks ahead of time. When the market did turn on that date, my email box was flooded the next day with inquiries from all over the US and Australia. I had no idea what happened but it was Yelnick who put in the good word. You should check out Planet Yelnick at [www.Yelnick.typepad.com](http://www.Yelnick.typepad.com).

One of the people who responded that day was Dawn Bolton-Smith from *Your Trading Edge* magazine in Australia. I had never heard of this magazine but readers started emailing me to say that Dawn was saying nice things about my work in her column. I soon found out that *Your Trading Edge* was a cutting edge trading magazine on the other side of the world. Dawn has one of the greatest stock market minds in the world and she is an incredible person. I'd also like to thank Aimee Sargent for giving me my first writing assignment at *YTE* and special mention to Chelsea Reid for following through after Aimee left the magazine to pursue other career opportunities. But it has always been Dawn who kept it together.

I'd also like to thank Dickson Yap at *The Trader's Journal* magazine based in Singapore for inviting me to write for his magazine and highlighting my work as their lead article in the November 2006 issue. Being in that fine magazine helped give my work an added international flair.

Sometimes one has to become recognized as an expert from afar in order to get any recognition at home. After my initial exposure in Australia, it was *Futures* magazine that showed interest in my Lucas work. A special thanks goes out to Dan Collins and Ginger Szala for having enough confidence to publish my work in the September 2006 issue of *Futures* magazine.

One of the main reasons this book was even written was because of the way Prophet.net keeps track of the day session of the NASDAQ E-mini futures contract. I found that by the way Prophet cuts out the overnight stuff I could get incredible precision in keeping track of the intraday bars from one day to the next. Special thanks goes to Tim Knight, President of Prophet for expediting and allowing the use of his charts in this book. Mr. Knight also has an excellent blog you should check out at <http://trad-ertim.blogspot.com>.

Since seeing is believing I also had to include a few case studies of the Forex market for people in that arena. The Esignal charts are used in the Forex chapter and they are excellent as well. A special thanks goes out to Julie Craig at Esignal for being supportive of my work and allowing use of the Esignal charts.

Special thanks to Marty Mchale for helping on the Power Point presentation for the DVD. Thanks also to Dru Johnson for her encouragement and keeping me on track throughout this process.

Of course, one of my biggest supporters is Jody Costa at Marketplace Books. Good people have to give work the light of day at the right time in order for it to shine. Jody was the first individual at Marketplace to support my work and she continues to go to bat for me. Jody doesn't do her work in a vacuum either and I'd also like to thank John Probst, John Boyer and Chris Myers for making this project a reality.

Finally the biggest thanks of all goes to my family. My father has been supportive all these years. My mother in law Beatrice Heffron always offered kind words of encouragement. Bea was living in a nursing home and her health took a turn for the worse the same week I signed the contract for this book. The nurses at the home told us Bea stopped eating and if that didn't change she wouldn't last another week. Immediately we went down there and told her the news. She lit up and started eating again which amazed those taking care of her. She was very happy to learn this project would finally become a reality and committed to hanging on until it was actually released. She didn't quite make it but she hung around long enough to see my name included on the distinguished roster of speakers at the 2007 Traders Library Hall of Fame Awards in Washington, DC. My wife Jeanne and son Josh have gone beyond the call of duty and there is no chance this book ever could have been written without your support. I love you all. My mom would be proud and I know she is watching from a better place.





# INTRODUCTION

Welcome to 21st-century technical analysis! In *Predicting Any Market*, we are going to shatter myths, gore sacred cows, and build a better mousetrap. For the past several hundred years, technicians have relied heavily on price and volume studies as the most important factors on a price chart. Don't get me wrong, these are very important. However, they do not give us a complete picture. Time studies are the least understood, yet they are a critically important element in technical analysis. Although traders comprehend price targets very well, most people have very little idea as to what really causes trend changes. Do you ever wonder why a chart hits a certain price target and lingers for days until finally one day it drops? Why did it drop on this day as opposed to that day? This area has always been one of the biggest problems for traders. The mission of this book is to close that gap. In the process, we will also open the door of your mind so you can have a greater understanding of why price action behaves the way it does. It is a wonderful world of possibilities.

I've followed the markets for thousands of hours and uncovered high probability tendencies that occur repeatedly. Though these tendencies do repeat, no two patterns are ever the same. The probabilities, however, are high

enough that we can craft a winning game plan. The best way to approach this book is to study the charts and then go to your favorite chart in real time. Don't trade, just watch. How long should you watch? Long enough so you get the hang of it. This can range anywhere from a few days to a few months depending on your time frame. After you watch, come back here and look at the charts again. Every time you do this process, you pick up things you haven't seen before. What you are doing in effect is rewiring your brain to visually pick up observations you never experienced before.

Coming to a true understanding of financial markets isn't easy. It takes years to understand what is transpiring on these charts. It also takes years to develop the necessary discipline to master what you need to know in order to pull the trigger at the right time. The methodology you see in this book comes after years of learning from mistakes and refining the methodology after key blunders. I've generated as much as \$10,000 a day in profits trading in the Futures market while losses were kept at no more than a \$1,000 a day.

You will learn from every experience. In my case, I was given the opportunity to be a trading partner in the Futures market with a very wealthy individual. I had an office in his house where I traded a portfolio of stocks. He traded the ND, which is the Futures contract based on the NASDAQ. Each morning we would set up a strategy for the markets. The Fibonacci Forecaster newsletter that now goes around the world used to be an exclusive Elliott-wave-based analysis of the NASDAQ for one client.

My partner would trade one to three contracts that were worth \$100 a point. This may be small potatoes to some institutional traders, but I can assure you—it is a respectable amount of money, especially after you pull the trigger. Typically, my partner would enter a trade; watch it for an hour; then leave to go take care of other business interests. Sometimes he would just get a massage. Then, he would summon me out of the bullpen and put me in charge of the trade. For me, many times this was like being thrown into a game in the 9th inning with the bases loaded and nobody out. I know how Mariano Rivera must feel. Many times the trade wasn't going well or still hadn't been decided. I had to make key decisions to minimize his losses, or if the trade ran in our favor, not pull the plug too soon. Because my income depended on what I did, I was under considerable pressure.

Because of those days, I learned that I could come through under pressure, and it was one of the most valuable lessons of my life. It has given me the confidence to do everything that has come since then.

On the other hand, we all experience losses, and we must learn from them. One of my early mistakes was buying call options on the day Gateway topped back in 1999. I don't remember the exact numbers, however Gateway had moved from the 50s up to 80. That was the day I bought call options at nine. By the end of the day, Gateway was down to 76 and my call options were trading at six. I had no technique or methodology back then and figured that if I was going to last in the trading game for even two days, I'd better learn what I was doing. Each time I came to some obstacle, I dedicated myself to overcoming it.

You wouldn't expect to become a doctor or a lawyer without the proper training. It takes years of schooling just to be allowed in the game. On top of schooling, you must serve some apprenticeship in the real world before you can be truly great at anything. So why would anybody think trading would be any different? History has shown us that people start out in trading to get rich with no formal training and think it is all very easy. They learn very quickly it's not.

One of the main reasons people think this way is because you don't need a degree to put on a trade. Anybody with a computer or a phone can do it. It irritates me to no end to see these late-night infomercials claiming that anyone can learn to be a profitable trader in one weekend. Many people also mistook the bull market for brains. Easy money from a bubble comes once in a lifetime. Some of you are going to put this book on the shelf and gain nothing from it. Others might read it through one time to get some salient ideas. However, this book was really designed for those of you who are serious enough to rip into it. Most of these charts need to be studied for hours to be understood. You'll study them, go to your own charts, make your observations, and then come back to these charts over and over. That's the only way you are going to learn the true nature of how these financial markets really work.

Understand, I am not claiming that you can master this stuff in a weekend; I am claiming that when you do master this material, you will never look at a chart in the same way your old self did. You will have the poten-

tial to become very profitable. If you are already profitable, you should do even better.

I've designed this book to give you the winning game plan. By the time you finish, you will be better prepared to deal with any market condition with greater effectiveness. Not only will you be prepared to take advantage of opportunities the market offers you, but you will also recognize in advance when you should be on the sidelines. Let's say you just bought a new silver car. You may have always driven a blue car. Now that you drive a silver car, you will begin to notice how many other silver cars actually are on the road. You may be surprised to learn it's a lot more than you thought. Once you start working with these time cycles, you will be surprised how much and how fast you actually pick it up. You will also recognize when cycles are not lining up. At these times, you should stay on the sidelines. As you know, not every market condition is conducive to making money.

This book introduces the time element on technical analysis charts and incorporates it into existing methodologies you already use. We build on it slowly from one chapter to the next. There are other books that cover the time dimension, but they don't include Lucas to the degree done so here. My goal is to simplify it in such a way as to make it a practical extension of technical analysis.

Gann started this work, and for the most part it has not caught on with the masses because it is very complicated and takes too many years to learn. I'm not going to hit you over the head with Gann wheels or angles. My job is to take something very complex and present it in a practical way that won't take years to learn. Mind you, don't confuse simple with easy. This takes work, but I believe it is very rewarding and well worth the effort. No matter how well this works, though, if it doesn't become fun, you won't adopt it as part of your game plan.

By the time you are finished with this book, your understanding of Elliott will be exponentially greater than it is now. You will be able to eliminate much of the subjectivity of Elliott and confirm patterns based on the time element of the charts. You will be able to recognize tops and bottoms as well as the many smaller turns in the markets. You will be able to look at a chart and determine the direction more easily than ever before. You will be able to combine this methodology with other popular indicators and use it with greater effectiveness.

Throughout the course of the book, I rely very heavily on candlesticks. There are many good books on candlesticks and I recommend all of the Nison (1991) materials. I also incorporate moving averages as those who utilize volume studies or trend-following systems use them. My own evolution went from exponential to simple averages and you will see them used interchangeably on shorter periods. There is very little difference in the results whether you use an exponential or simple average on the smaller averages, but there is a big difference when you get up to a 200-period moving average.

Most important, you will have a practical high-precision pattern-recognition system that you will be able to use and make money consistently. How much money? That is entirely up to you. This depends on your dedication. This book isn't about money. Technical books by Edwards and Magee as well as others are not specifically about making money. However, what they do is give you high-probability tendencies that work. This book is the same. It's about process. My take is that if you keep your mind off the prize, you will get it. I know the ultimate goal is to make consistent profits, but you can only do that by handling the fundamentals correctly.

In professional sports, the goal is to win the championship. But how much time do they really spend on talking about winning the championship? Not much! But they do spend a lot of time talking about developing championship-type work habits. They talk fundamentals, mechanics, attitude, and practice. Mostly practice and then more practice. Why do they practice so much? It all leads to the final step, which is execution. They practice and train so hard for the moment that doing the right thing becomes second nature. Tiger Woods makes that difficult shot because he practiced it thousands of times, and visualized it probably a thousand more. By the time he has to execute, his impulses have taken over. He knows what to do, and because he's done it so many times, he has the confidence it will happen. Some of you will take this material, incorporate it into your game plan, and make it your own. Others will read it passively and marvel at market precision and do nothing with it. It is entirely up to you. Rest assured that by the end of this book, you will have strategies that you can use immediately in your trading.

When it comes to pattern recognition, remember that, like snowflakes, no two patterns are alike. However, tendencies do repeat. Your job in this joint venture of ours is learning the tendencies. When you learn the tendencies, you will come to recognize patterns that will help you make money. I've uncovered characteristics that repeat. Many of you are not even aware they exist. The purpose of this book is to shed the light of day on it. I'll give you the car, but it is still up to you to turn on the ignition.

*Jeff Greenblatt*

# 1 | CLOSING THE GAP

Back in the 1920s and 1930s, Richard W. Schabacker wrote several books that were based on Dow theory. He hypothesized successfully that certain patterns in the major averages were also relevant to individual stocks. His brother-in-law Robert D. Edwards continued his work. Many in our generation are familiar with the technical work of Edwards and his partner John Magee (Magee, 1994, ix–xv). Together, they are considered the fathers of modern technical analysis. As we know, technical analysis is a snapshot of market participants' collective behavior. Because we are dealing with human emotions, these patterns of collective behavior are continually repeated. They can be recognized and then used to anticipate future moves in the markets. These patterns can be further broken down into naturally recurring sets of waves and calculations.

The basic structure of financial markets lies in a catalog of repeatable patterns uncovered by Ralph Nelson Elliott, refined over the years by other well-known Elliotticians, including Robert Prechter Jr. The Wave Principle represents a good pattern recognition system. No two patterns are ever alike, but they all have repeatable tendencies. Inside these waves are universal calculations, which are measured in terms of price and time. These

## Édouard Anatole Lucas

Famous for his research in number theory, François Édouard Anatole Lucas is the 19th century French mathematician for whom the Lucas Series is named. It was while working with the Fibonacci series (one he is often credited with naming) that he discovered the closely related series of numbers. While defined nearly identically to the Fibonacci series (each number is the sum of the previous two, except for the first two members of the series;  $f(n) = f(n-2) + f(n-1)$ ), Lucas numbers start with 2 and 1 rather than 1 and 1. While seemingly a small difference, the variation is clear:

Lucas Series:  
2, 1, 3, 4, 7, 11, 18, 29, 47,  
76, 123, 199, 322, 521, ...

Fibonacci Series:  
1, 1, 2, 3, 5, 8, 13, 21, 34,  
55, 89, 144, 233, 377, ...

**continued on next page**

measurements are driven by Fibonacci relationships. Much of the research on the time element is derived from the work of W. D. Gann, who should be considered the founding father of modern time studies. From Gann, modern Fibonacci analysts have done an excellent job of simplifying the methodology so traders can use it as an everyday discipline.

The Elliott methodology relies heavily on the Fibonacci relationships to the point where the trader really can't use one without the other. Because the Wave Principle relies on Fibonacci calculations, it would make sense that those who use Fibonacci retracements would recognize patterns in terms of Elliott waves. This book incorporates the time principle into the Fibonacci–Elliott ways of thinking and provides traditional technical analysis. I find, however, that the Elliott–Fibonacci community has left out an important part of the equation. Some Fibonacci calculations are so complex that they are not practical to use. Traders use Fibonacci calculations because they are practical pattern-recognition tools. Yet, what if some calculations are too complex to be recognized easily? If it doesn't work, what do we do instead? How do we fill in the gap? This book, to a degree, closes that gap.

Most books of this genre cover Elliott and Fibonacci, as well as sacred geometry. This book enhances most of these studies. The methodology presented here relies heavily on the Lucas series of mathematics. French mathematician Édouard Lucas (1842–1891) discovered this series, which is a derivative of the Fibonacci sequence. It is mentioned briefly in other books, and it is here where this series is presented in great detail. Although I am not the first to present Lucas to the financial community, I believe its profound influence on many financial charts in all degrees of trend has been greatly misunderstood and understated. This book attempts to rectify that. Lucas's work does not supersede Fibonacci's; it complements it. What most people in the trading community don't realize is the degree to which it complements it. According to the research presented here, you will see how often it does. The purpose of using the time dimension is to gain a very important tool in the pattern recognition game.



An airplane pilot would never think of taking off in a plane that was not equipped with instruments that would enable him or her to fly or land it in spite of poor visibility. As challenging as financial markets are, using technical analysis as a pattern recognition system without the time dimension is like attempting to land a plane in zero visibility.

Before switching to “instruments,” we must be able to navigate in good weather. Basic navigation of financial markets begins with an understanding of the Wave Principle. The Wave Principle gives the trader a good start at pattern recognition. Those of you trained in the Edwards and Magee school of technical analysis can compare and contrast the two methodologies. This book uses the Wave Principle only as a guide because it is fairly complex and not totally reliable in real time.

When we look at the waves, we can get an idea of where we are in a trend. We can also have an idea if we are in the main trend or in a move that technically “corrects” that trend. Sometimes a correction is so large in relation to the main trend that we really don’t know whether the larger trend has changed. This is one of the black holes in the Wave Principle that this book intends to clarify.

There are two basic patterns of waves. The first are known as “impulse waves,” which is the larger degree prevailing trend. The other is known as “corrective waves,” which move counter to the main trend. Each has its own distinct set of characteristics. In this chapter, I only cover the basics as a review of materials you may have read elsewhere. Later, I will show you how to recognize an impulse or corrective wave by exclusively understanding the number sequences.

## IMPULSE WAVES

Impulse waves have their own unique characteristics. The larger prevailing trend is considered to be an impulse wave, which you can recognize as it moves in a 5-wave sequence. Impulse waves can also move in 9- or 13-wave patterns. There are only

As is true for any Fibonacci-like series, the ratio of successive Lucas numbers converge to the golden ratio  $\phi$  (1.618 ...). Moreover, the two series are related in many other ways with ongoing research still in progress today. According to Clark Kimberling, Professor of Mathematics, University of Evansville, to find the following Lucas-Fibonacci identities to be true, write the two sequences as  $L(0), L(1), L(2), \dots$  and  $F(0), F(1), F(2), \dots$ , then for all nonnegative integers  $n$ :

$$\begin{aligned} L(n) &= F(n+2) - F(n-2) \\ L(4n) + 2 &= (L(2n))^2 \\ L(4n) - 2 &= 5(F(2n))^2 \\ F(n+m) + F(n-p) &= F(n)L(m) \\ &\text{if } m \text{ is even} \\ L(n-1)L(n+1) + F(n-1)F(n+1) &= 6(F(n))^2. \end{aligned}$$

Forty-seven such identities are given by Verner E. Hoggatt, Jr. in his book *Fibonacci and Lucas Numbers* (Hoggatt 1969, 59-60).

**IMPULSE WAVES**

1. Wave 3 is never the shortest wave.
2. Wave 2 never retraces more than 99 percent of wave 1.
3. Wave 4 does not overlap the territory of wave 1.

three iron laws of impulse waves according to Prechter (Prechter 1999, 30):

1. Wave 3 is never the shortest wave.
2. Wave 2 never retraces more than 99 percent of wave 1.
3. Wave 4 does not overlap the territory of wave 1.

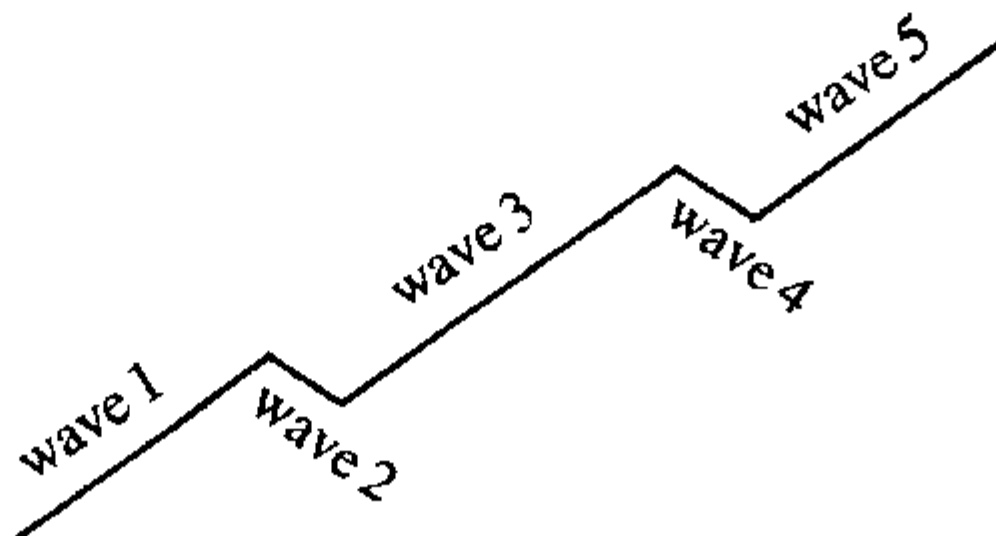
Let's clear up some of the confusion surrounding these rules. Some think the third wave is always the largest wave, but this simply is not the case. Generally, the tendency is for wave 3 to be the largest wave, but the rule is that it can't be the shortest wave. If you are counting waves and the middle wave is the smallest, something else is going on. That particular wave might be an extension of the first wave, but it isn't a third wave (Figure 1.1).

The other controversy surrounds fourth waves. According to some in the Elliott community, they do not allow for any overlap of the first and fourth waves, but I've seen many instances where wave 4 touches, grazes, or slightly overlaps wave 1. I think you need to apply common sense to the situation. If you have a fourth wave that makes an obvious violation into first-wave territory, it isn't a fourth wave. If you've had a first wave, a retracement second wave, and a third wave that makes a decent advance; and then you have a pullback that grazes first-wave territory before turning up, I think you can make a case for the pullback being the fourth wave.

Another characteristic of impulse waves is the Rule of Alternation. This is not an iron law, but rather a guideline. The Rule of Alternation suggests that if the second-wave retracement takes

**Figure 1.1**

Basic Elliott Wave Pattern



the form of a sharp correction, the fourth wave is likely to be a flat correction. Another way in which this rule manifests itself is that when the first wave is the largest wave, the fifth wave will be the smallest. In a larger move, if one set of five has the third wave as the extension, the next round will have either the first or the fifth wave as the extended wave (Prechter, 1999, 61).

Extensions are another important characteristic of impulse waves. This means that of waves 1, 3, or 5, one will be considerably larger than the other two. Extensions are hard to count while they are in progress, and the exact count is not readily apparent until late in the move. The time cycles clear up much of the confusion and allow traders or analysts a better roadmap to determine more easily where they are in the bigger scheme of things.

There are sets of common relationships in an impulse sequence that are Fibonacci based. The most common tendency is for the third wave to be the extended wave, and many times it will measure 1.618 or 2.618 times the length of wave 1 as measured from the bottom of wave 2 (Prechter 1999, 125–138). In lower probability cases, wave 3 may even measure 4.23 times the length of wave 1.

When wave 3 is the extended wave, the tendency is for waves 1 and 5 to have a .618/1.618 relationship to each other. In rare cases, wave 5 can be a 2.618 extension of wave 1. Recently, we had a situation in the XAU where wave 5 was a 2.618 extension of wave 1 and wave 3 was not the shortest wave. When wave 5 extends, it usually measures 1.618 times the length of waves 1 to 3, with wave 1 being the smallest wave. When wave 1 extends, it will usually measure 1.618 times the length of waves 3 to 5, with wave 5 being the smallest wave. In rare cases, we can have a double extension where waves 3 and 5 are both twin 4.23 extensions of wave 1.

The best way to recognize an extended wave is to observe how the progression begins. Once we get a new trend, we'll have a first wave up, a retracement, and another leg up. If the second retracement violates the territory of the very first wave in the sequence, we know by the iron law of fourth waves that this can't be a fourth wave. It must be the start of an extension or larger move. How do we know that it is not a corrective move? Watch the volume patterns. At all times, we will use other indicators to confirm a wave count. If we are in an uptrend, the down days compared to the

## CORRECTIVE WAVES

*Corrective waves have their own unique set of characteristics that differentiate them from impulse waves. A wave is corrective when it moves counter to the trend. There are two types of corrective waves. One family consists of sharp corrections, the other family of flat corrections. You may consider triangles to be another subset, but technically they are part of the flat family.*

up days will be lower volume on average. For instance, if we've been through a long downtrend where sentiment became unusually negative, *the trend going in the new direction will start to build decent volume days and the pullbacks will be of lighter volume.* A lighter volume wave that slightly overlaps a first wave up is likely to be corrective, counter to the new trend, and part of an extension going in the new direction. The time dimension will also give us a good clue as to the underlying direction. I will cover that in a later chapter.

## CORRECTIVE WAVES

Corrective waves have their own unique set of characteristics that differentiate them from impulse waves (please see Figure 1.2 for a look at the complete wave sequence). A wave is corrective when it moves counter to the trend. There are two types of corrective waves. One family consists of sharp corrections, the other family of flat corrections. You may consider triangles to be another subset, but technically they are part of the flat family.

Sharp corrections normally fall into a 5-3-5 pattern of waves. They are labeled differently from impulse waves and use letters as opposed to numbers. An ABC correction will contain five small waves moving counter to the trend followed by a small, sideways or triangle correction, followed by five more waves. The way to recognize these waves is that they violate the overlap rule where the fourth wave falls deep into the territory of the first wave. The best way to recognize sharps is that they are very choppy.

If you don't understand waves and have no real plan to do so, the best way to understand corrective moves is by their choppiness or lack of structure. Corrective waves are also characterized by an average lower volume than the prevailing larger degree trend moving in the other direction. How do you know you are in a correction? Let's say we are in a bear market and begin a bounce. If the up days are on light volume, it's bound to fail. It can be as simple as that.

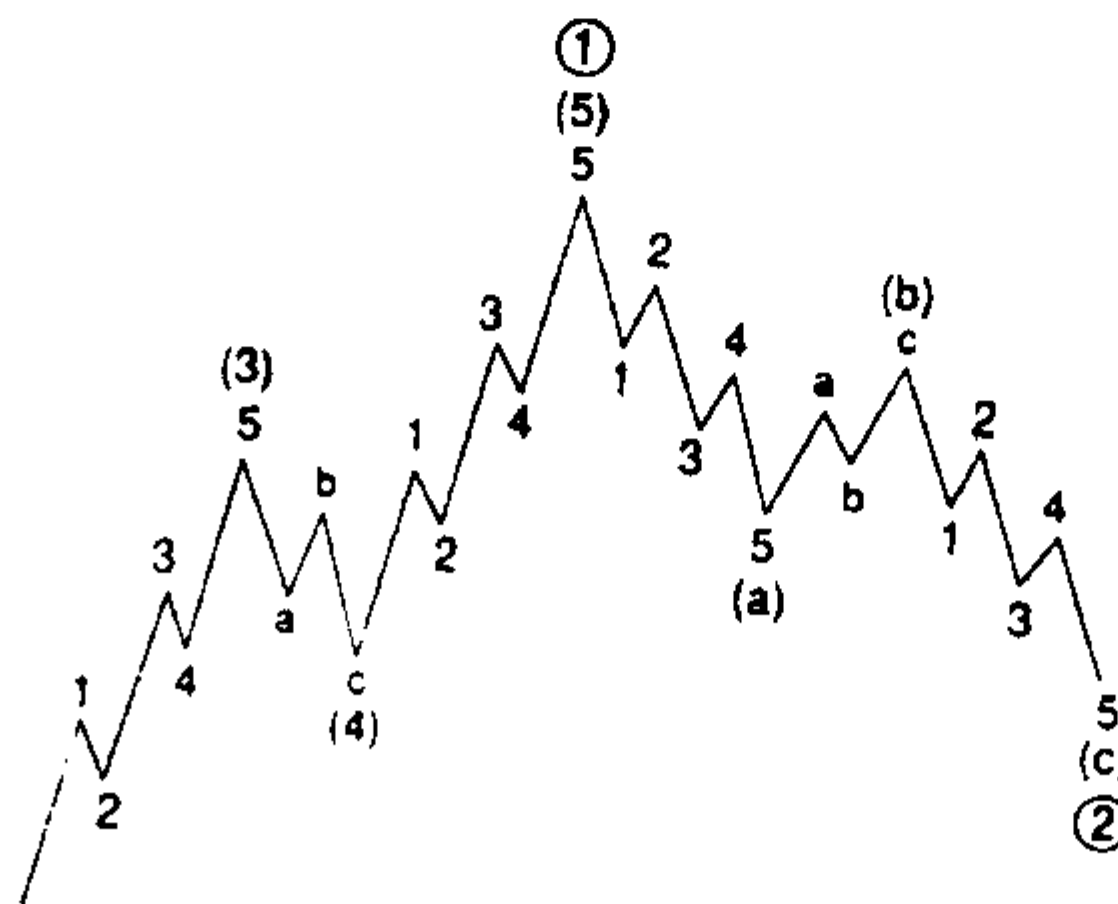
Sharp corrections retrace 38 percent, 50 percent, 61 percent, 78 percent, or 88.6 percent. In rare cases, they will retrace 23 percent. Several years back, a study was done by Rich Swannell, an Australian Elliottician. He took millions of retracements in all degrees of trend

and found that 60 percent of second-wave retracements fell under the bell curve between the 25 and 70 percent retracement level (Swannell 2003, 34–35). This adds to the complexity because 40 percent of the time, we will have some other retracement such as the 14.6 or even the 88.6 percent. How one definitively defines a second wave in an impulse or a B wave in a corrective, I'm not sure.

We derive the 88.6 level because it is the square root of the .786 retracement level. However, moves will stop short of a full retest right on the 88.6 percent marker. For most common retracement relationships, here's what happens. We will get an impulse move in one direction, and when it comes time to retrace, the first leg will retrace 38 percent counter to the trend. This would be an A wave or the first part of an ABC. A small B wave commences, and finally the C wave kicks in to take the entire retracement to the 50, 61, or 78 percent marker.

For instance, the first move counter to the main trend keeps going and retraces 61 percent. This is a clue that the move might not be corrective. Normally, A waves will not move 61 percent counter to the prevailing trend. Odds are something else is going on. What might that be? First legs that move 61 percent going the other way most often are new trends in the opposite direction, but they could also be 100 percent retests, which turn out to be double tops (bottoms).

Flat corrections (Figure 1.3) are also known as complex sideways patterns. Their shape is the three-wave pattern but is considered to be broken down into a smaller subset of 3–3–5. They are best recognized as moves



**Figure 1.2**  
Complete Wave Sequence

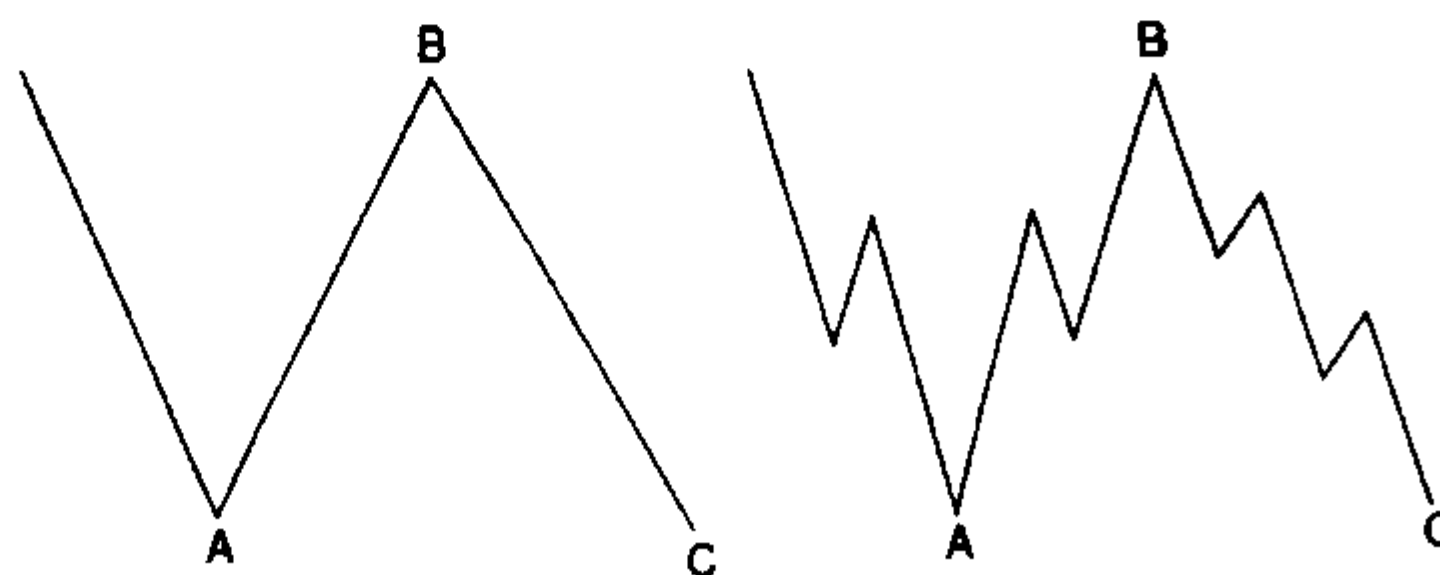
where all three legs tend to equality. The A wave will move counter to the prevailing trend and is likely to retrace 23 to 38 percent. The B wave will then come all the way back to retest the high (low). The C wave will drop down to the level of support (resistance) of the A wave before the prevailing trend continues.

One of the most hazardous patterns in the entire catalog is known as an irregular or expanded flat pattern. This pattern is dangerous because it is a low probability that happens often enough to be a problem. Although there hasn't been a statistical study done on expanded flats, I've been told by other expert Elliotticians that they confirm about 30 percent of the time. Here's what happens: After an impulse wave in the prevailing direction, an A wave will retrace 38 percent of the move and then turn back in the direction of the prevailing trend and make a new price extreme. Let's say we have an uptrend in place. The first leg down will retrace approximately 38 percent and then turn back up, thus confusing market participants into thinking the prevailing trend is back in place. There is the obvious retest of the old high, and when the old high is taken out, participants are induced to go long. They are wrong because prices don't carry very far.

What happens next is almost criminal. After participants take their long positions, a C wave kicks in going the other way. C waves are always the most violent moves in the entire catalog. The C wave usually measures 1.618 times the A wave that began the pattern. If, for instance, the A wave measured 10 points and the B wave up, which took out the old price extreme, takes out the old high by 2 to 3 points, a C wave will now drop 16 points, taking out the old A wave low. The players who went long either get stopped out or taken to the cleaners. Finally, by the time the C wave measures 1.618 times the original A wave, new players are

**Figure 1.3**

Flats



convinced this is a new trend moving in the opposite direction. They join in on the short side, but they are wrong. The correction is over as prices fail to drop another point. This time it is the bears who are taken to the cleaners, as the correct side of the market is once again the prevailing trend prior to the A wave.

The problem with trading this sort of pattern is that you can suspect it, but it only works out 30 percent of the time. Unfortunately, the only time we can really recognize an expanded flat is when it is complete and in the rearview mirror. Sorry, this isn't a game for children. The good news is we can smoke out these patterns more readily by adopting the methodologies uncovered in this book.

## TRIANGLES

Triangles appear in the fourth wave of impulse moves and B waves in corrective moves. The implication of triangles is they are the next to last move in a pattern. What makes a triangle so complex as part of a fourth wave is that, by nature, fourth waves are difficult to count. The third wave, which is usually the most powerful move in an entire pattern, generally includes the point of recognition where all participants realize the trend is up. Casual participants such as the general public begin to get interested.

At some point in time, the third wave comes to an end and sentiment becomes one of surprising disappointment. Professionals begin to take profits as they sell to latecomers. However, there are still enough buyers to keep the trend alive. What a triangle signifies mostly is a tug of war for dominance between bulls and bears. As fourth waves are difficult to count, we don't realize we are in a triangle until at least half the pattern is already developed. Let's say we are in a bull market. As wave 3 ends and there is a drop, participants erroneously assume a new bear market. What happens is that the first wave down ends prematurely, and participants erroneously believe that it is an automatic continuation of the prevailing bull trend. However, there will still be another drop, and those participants who are less convinced will drop off. Overall, the battle between bulls and bears continues until the triangle completes.

The two most common types of triangles are contracting and expanding (Figure 1.4). There are a few important guidelines in identifying a



valid triangle. In contracting triangles, the five-wave sequence will have at least two waves going in the same direction that have a 1.618/.618 relationship to each other. What that means is that either A and C or D and E will have that Fibonacci interwave relationship. The tendency for expanding triangles works the same way, except that the waves get bigger as the pattern progresses.

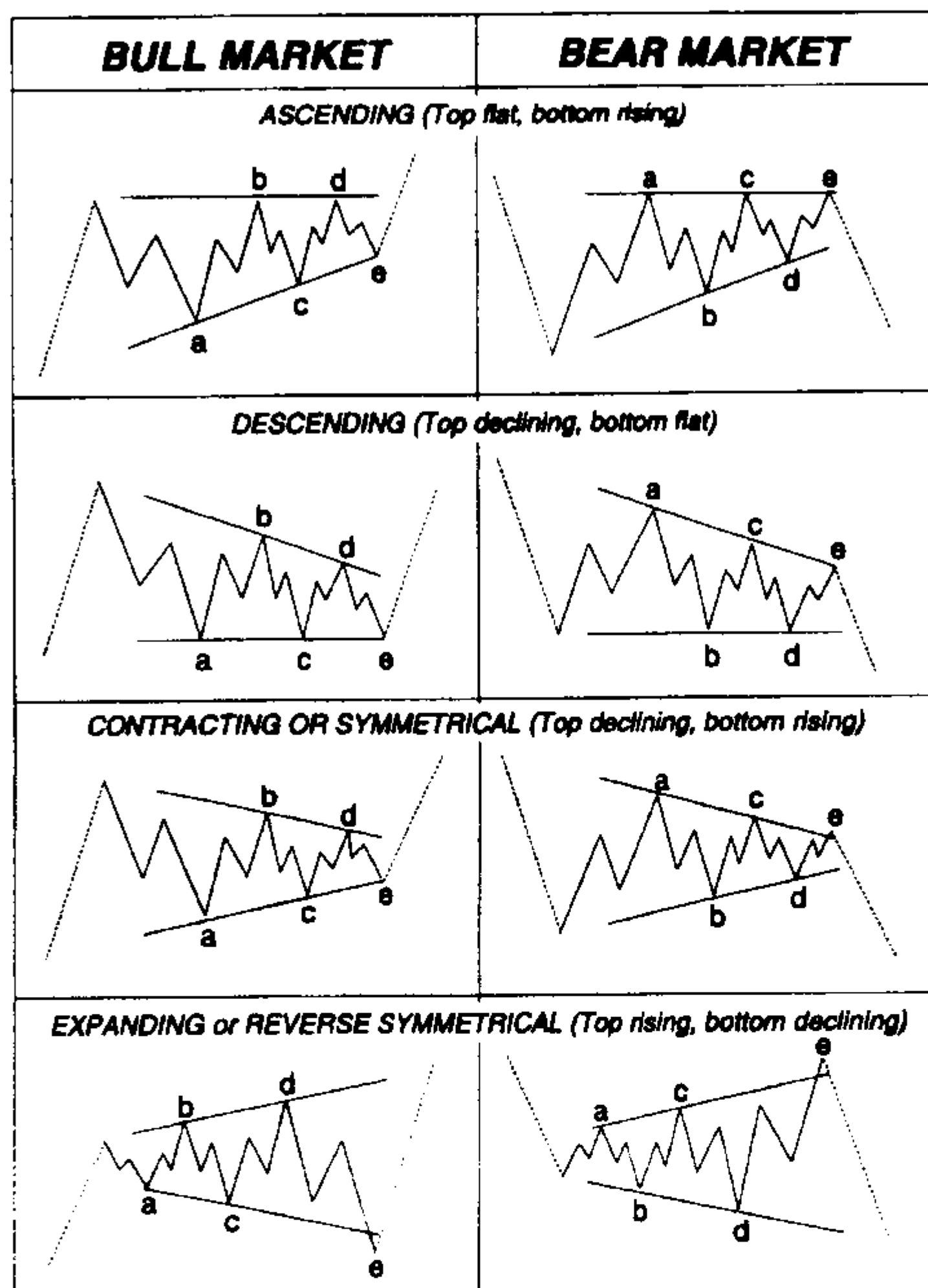
The mistake most Elliotticians make is confusing the triangle with the complex sideways or expanded flat pattern. What happens is the alleged triangle develops most of the way but ends blowing up near the end. Here are some guidelines to prevent that from happening:

1. Realize the triangle is the next to last move in a pattern. Chances are slim that you'll see a triangle confirm early in a trend.
2. Always look for those Fibonacci interwave relationships discussed above. If you don't have those relationships, odds are that the triangle is not going to confirm.
3. A triangle has to have the look of a triangle. Elliott and Prechter both state that the most important aspect of any wave count is that the pattern has to possess the proper look to it.
4. This one is original to this work. The time bars usually confirm the pattern. This is not an iron-clad rule, but rather a strong guideline. Most triangles will complete in the correct number of Fibonacci or Lucas time bars.

I've found that triangles will complete in 47, 55, 76, 78, or 89 bars on one of the intraday time frames. As you can see, this is a mixture of Lucas and Fibonacci. The periods followed here are 1, 5, 15, and 60 minutes; and then daily, weekly, monthly, and yearly.

Some contracting triangles contain a concept called "Thrust Measurement." In certain instances when the triangle appears in the fourth wave position, we can measure a perpendicular line from where the A wave begins down to a trend line extended into space as a potential target for the completion of the fifth wave. There are examples of this later in the book, but let's say the width of the triangle from the origin to a line drawn perpendicular straight down measures 15 points. Let's say that for xyz stock, the third wave ends at 60; the A wave bottoms at 52; and the triangle finally completes at E wave 55. Many Elliotticians mistakenly assume the thrust measurement would be the length of the A wave which is 8 points.





**Figure 1.4**  
Triangle Patterns

Note: Each of these patterns may occur in either the rising or falling position.

However, when we back up the lower trend line to the point in time where the A wave started, we find the trend line extends back into space to a point on the chart near 45. When we see the triangle completed at 55, we can then project a final fifth wave target at 70.

## DIAGONAL TRIANGLES

Diagonal triangles (Figure 1.5) are considered to be impulse waves and are the only waves that allow overlap between the first and fourth waves. Diagonal triangles are considered to be part of the impulse wave family because we see them often as fifth waves part of the larger overall trend.

*Also, they would not be considered as corrective waves because they are so often the final wave of a pattern. Because there is much overlap, they are confused with corrective waves. Eventually, the third wave will sprout above resistance, but as the move gets higher, you can determine a wedge shape with converging trend channel lines. The other reason they are confused with corrective waves is that each leg is a three-wave pattern and has the look of an A wave.*

Most diagonal triangles appear in the ending position, but in rare situations they can be seen in the leading first- or A-wave, position. The difference between the two is that the ending pattern is 3-3-3-3-3, and the leading wedge takes on the shape of a 5-3-5-3-5. In the leading position, the wedge pattern has good volume, whereas in the ending position volume is waning, indicative of the end of a move.

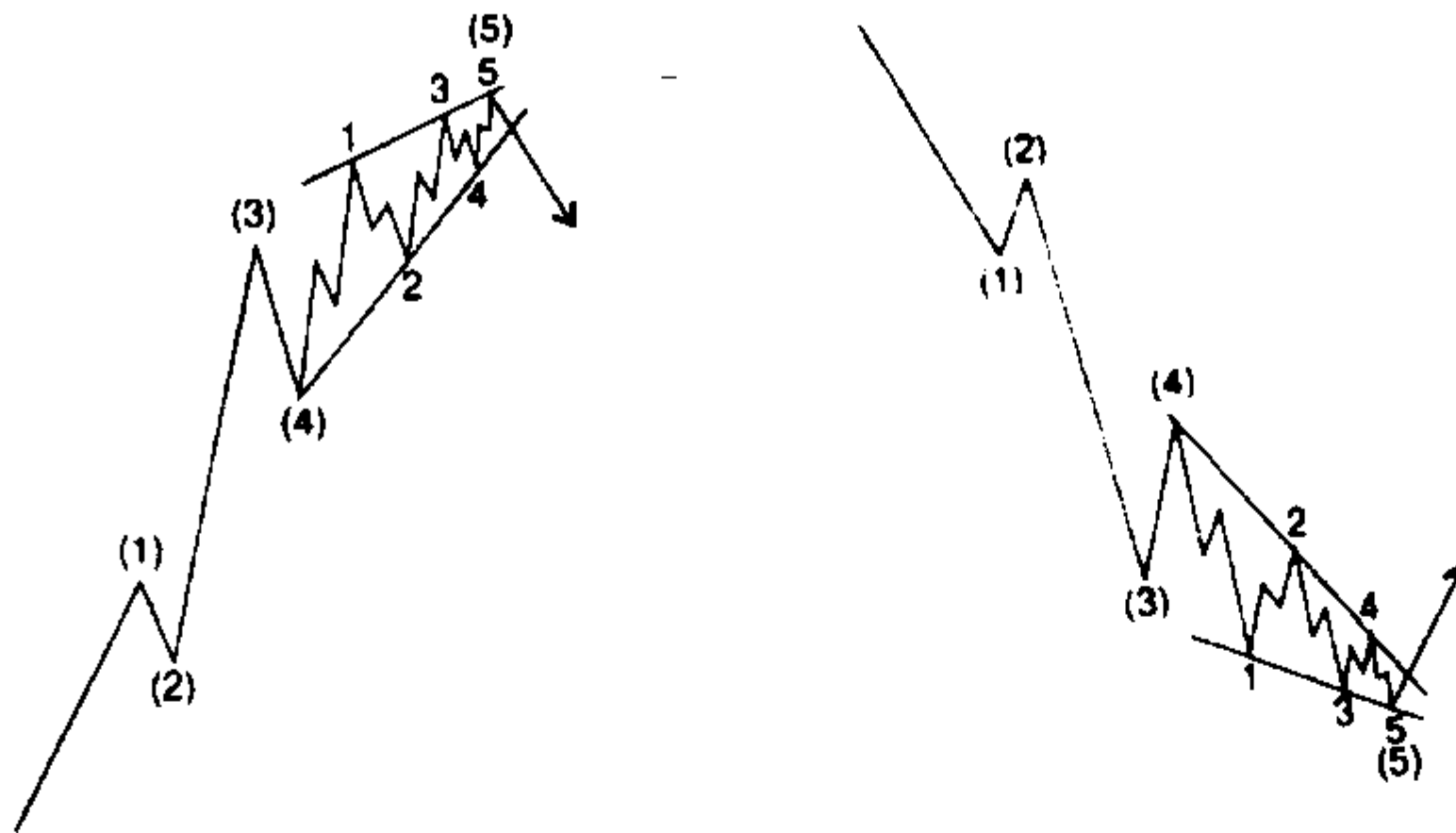
## SENTIMENT

Each particular wave has its own range of emotions. Once a new trend starts, the crowd has been conditioned by the old trend. At the end of a bear market, psychology is such that the masses have been beaten down for years. For those of you who go back to the 1970s, sentiment was so bad that the major brokerage houses were laying off good percentages of their sales staffs. This is normal behavior in a recession, but in this case, it reached the point where they were even discouraging newcomers from entering the field. People were so down on stocks that even economists and other industry experts had little hope they would ever take off again. By the end of a bear market, most participants are convinced that price action is a bottomless pit that will go on forever. That is how you can recognize a true bottom. Tops are at the other extreme. Recall that by March 2000, everyone was convinced that the NASDAQ was going to the moon.

A new bull market starts and is met by doubt and disbelief. Participants are of the opinion that the new move up is just a correction and that the larger degree trend will return to set another new price low extreme simply because the prevailing trend has already done so for years (or whatever degree of trend we are considering). When the first wave finally does end, we get a retracement that has a technical purpose of testing the low. That does not mean it has to go all the way to the exact bottom. The sentiment

**Figure 1.5**

Diagonals



of second-wave retracements is “Here we go again.” You can recognize second- or B-wave retracements by their recreation of the mood in the final wave of the old trend (Prechter, 1999). This is why participants in a bear market rally believe we are in the early stages of a new bull market. In the early phases of a new bull market, almost nobody believes it is a bull market.

Okay, we’ve had our retest or technical retracement, and participants come to discover the sky isn’t falling. When all of the technical requirements for a second- or B-wave are met in terms of price and time, there is only one way for prices to go and that is to a new extreme in the new direction. What happens in third waves is that once we get near resistance or the first wave, high-sentiment indicators are still mostly negative as participants believe a market top is close. In fact, we are still much closer to the bottom than we are to the top. In the last great bull market of the 1980s, during much of the early 1980s up to late 1985, participants were convinced we were near a top. It’s hard to imagine today, but when the Dow was between 1000 and 2000, people thought that was the ceiling. Because sentiment is negative, the implication is that there is plenty of money on the sidelines that hasn’t been put to work.

Where does this money come from? Realize that in the early stages of new bull markets, the economy has bottomed and relative prosperity has returned. Bull markets are characterized by a new set of companies with new technologies. As time goes by, people start becoming optimistic about their future prospects and start investing their earnings. At some point,

## Sentiment Cycle

**Bottom:** The extreme of emotional sentiment. In a bear market, one feels like the market is a bottomless pit; and in a bull market, one feels like the market can go to the moon.

**Beginning of new trend:** Sentiment is of doubt and disbelief. Feelings from the old trend are still entrenched.

**End of first wave:** The market is in a retracement that retests the low.

**Second or B wave:** The retracement creates sentiment that is reminiscent of the final wave of the old trend.

**Third wave:** Retest of bottom holds. Sentiment reaches new extremes until the point of recognition.

**Fourth wave:** Sentiment is of surprising disappointment and confusion. No one is sure which way the market is heading.

**Fifth wave:** Volume compared to third wave is lighter. When everyone is finally convinced of a trend's direction, then the trend is likely over and ready to correct.

momentum kicks in and more people finally realize the trend has indeed turned. This is usually at the midpoint of third waves and is considered to be the "point of recognition."

As we know, third waves will extend in some Fibonacci relationship to the first wave. Market conditions, economic factors, demographics, and technology will determine the size and scope of the cycle. A third wave usually extends to 1.618, 2.618, 4.23, or 6.83 times the length of the first wave. In certain instances, the third wave can even be a double 4.23 extension. How else can Dow 2000 in the early 1980s turn into Dow 7000–11,000 by the years 1998 to 2000?

By the time we are beyond the point of recognition, the easy-money crowd starts to get involved. People who have no interest in or knowledge of the markets get interested. When cab drivers make money in stocks, we are getting late in the move. When everyone at the cocktail parties talks about the stock market, it's getting very late. By now, sentiment indicators have turned positive and reached bullish extremes. When certain price and time targets are met, the third wave ends.

The prevailing sentiment of fourth waves as discussed previously is one of surprising disappointment (Prechter, 1999). Fourth-wave consolidations are very complex. According to Bill Williams (1998), another well-known Elliottician, if you wake up in the morning and have no clue about the wave count, odds are that it is a fourth wave. Fourth waves are characterized by many cross currents. There are those who are convinced the bull market is over. Others are attempting to buy the dip. In the end run, the pullback is of a lower volume than the third wave up and lacks the conviction of a new trend going the other way. At some point, selling pressure dries up, and the fifth wave kicks in.

Fifth waves are characterized as being weaker technically than the third wave, yet sentiment goes to new extremes. Not only are the cab drivers becoming day traders, but also grandmothers are pulling the trigger. Many are total novices involved for the first time. Technically, it is a pattern where all divergences develop. The first one is that the advance/decline market internals are not

as strong as the third wave. Fewer and fewer stocks are participating in the move. There is a divergence as the move powers on but with lighter volume. During earnings season, stocks already are priced to perfection, and if they don't meet inflated expectations, they are generally taken out to the woodshed. However, because it's still the fifth wave, prices tend to recover, but not with the power and conviction seen in the third wave.

As the market powers even higher despite bearish divergences, weaker volume, or market internals, everyone is convinced that prices will keep going higher. Why? Because the mood becomes a self-fulfilling prophecy. By the end of a fifth wave, proof of the trend is seen, and despite the early signs of trouble, the market keeps going. Finally, participants are convinced that prices can only go one way. A day will come where a certain news event like a Federal Reserve Open Market Committee will announce that there will be no rate hikes and the talking heads on television will announce that nothing is standing in the way of the markets to power even higher. That is when the move is likely over. At bear market bottoms, it is just the opposite. People see the market as a bottomless pit. At market tops, everyone is finally convinced that prices are going to the moon. This is where it ends.

## MY EXPERIENCE WITH ELLIOTT

There is no doubt that Elliott waves provide a universal structure to all free financial markets. It is an excellent pattern-recognition system. Those in academia who have been telling us for the past 60 years that prices are random are all wet. If you get nothing else from this book, you'll realize that Random Walk Theory is obsolete. According to Burton Malkiel in *A Random Walk Down Wall Street*, future steps or market directions can't be predicted based on past actions (Malkiel 1973, 24). Those who tell you that it's impossible to time financial markets just don't have the skills required to do it. The Elliotticians of the 20th century from Elliott himself all the way to Prechter have laid a firm foundation of understanding how financial markets work. The Wave Principle was the first really popular line of defense against Random Walk Theory, but there are flaws and gaps.

The first flaw is that there is so much subjectivity in the interpretations of the waves. Strict Elliott interpretation contains wave notation in degrees of trend that range from grand super cycle all the way down to micro

## Random Walk Theory

Based on Burton Malkiel's landmark 1973 book, *A Random Walk Down Wall Street*, random walk theory states that markets can not be predicted based on past results. Based on the research of Maurice Kendall in 1953, the theory asserts that stock price fluctuations are independent of each other and have the same probability distribution, but that over an extended period of time, prices will maintain an upward trend (Investopedia.com 2007).

A true believer in random walk theory would say that it is an impossibility to outperform the market. If each stock has an equal probability of moving up or down and if the result of this movement is always random, then it follows that any analysis, whether technical or fundamental, would be a huge waste of time. The only counsel Malkiel offers his proponents is a long-term buy and hold approach with no attempt at timing the markets.

Although random walk theory continues to be debated today, those who study technical analysis have long since found it obsolete.

waves on a 1-minute chart or even smaller on a tick chart. You can spend so much time trying to figure out if you are in wave 1 of wave 2 or still in wave 5 of 1. The academics of the Wave Principle also get caught up with proper notation with letters, numbers, Roman numerals, and Roman numerals within parentheses. I found this to be unnecessary, and it never helped me make a red cent. With no disrespect to the Elliott mentors of this generation, I've found them to be long on the textbook presentation of the waves and their forecasts largely inaccurate. This should not be news to any of you.

I'm here to tell you that the most important thing you can do with Elliott is apply common sense to the situation. The best application of Elliott in real time is as a guide. You don't need certainty in wave counts. However, you do need to have an idea where you are. It's important to know if you are in a first, third, or fifth wave. It is important to understand the difference between impulse and corrective trends. If you get the major part right, you can be wrong about the exact wave count; but if you are still on the right side of the market, you will come out ahead.

The leaders of the wave community have done a fine job of laying the foundation and setting the table for the next development in this field. What they've done is tell us textbook waves move in impulse 5s and corrective 3s. They haven't told us how to recognize them easily. If they did, there wouldn't be such debate. To use a sports analogy, if the Mets won the game today 4-3, there wouldn't be any argument. We can analyze the game from a standpoint of strategy, offense, and pitching, but all that really matters is the facts. Scoreboard! You can never dispute the final score of a game. When you look at an RSI reading of 70, it's 70. There is no debate. When we look at an engulfing candlestick pattern, it is what it is. But if we can't agree on a wave count, we have a problem.

The methodology in this book goes a very long way in bridging that gap. What is presented here and in the following chapters will take your understanding of Elliott and pattern recognition to new levels of precision. The great W. D. Gann began this work nearly 80 years ago, but for most of the 20th century, at least in the United States, he has been brushed under the carpet. Until now.

## 2 | A NEW LOOK AT THE LANGUAGE OF ELLIOTT WAVES

To read and write for the first time, you had to learn the alphabet. This may seem elementary now, but when you were 3 or 4 years old, you didn't know how to sound out the alphabet. Finally, you realized there was an alphabet, but you didn't know what to do with it. Then you learned a few words and put them into sentences. As your vocabulary expanded, you advanced to learn proper spelling and grammar. It's the same concept here as we'll take this new language of the markets and put it into words and sentences.

This chapter is designed to show you how to work with wave counts based on the time dimension. We know that Elliott is very subjective. The best part of working with these time relationships is that they are easier to recognize than counting the waves. Wave counts are difficult pattern-recognition systems because they evolve over a period of time. When we track the time element, we follow repeatable tendencies that are simple to recognize when we know what to look for. In this chapter, I will teach you how to confirm a wave count using the time bars.



Put up a count of the Dow from 2002 to 2006, and you are liable to get as many different variations as there are Elliotticians in the room. As we know, the count has been so complex that we may not even be able to get a good count. The academic community may enjoy this exercise, but how can you make money with that sort of information?

Simple answer: you can't. As discussed in Chapter 1, we know that there are certain rules we must follow for the structure of markets. We aren't following those rules so we can get an "A" on a college final exam. We follow the rules so that we have an idea what a market can do from any point in time. If we don't have a strong foundation of discipline, there is very little chance we are ever going to develop a conviction of what comes next. The most important emotional component a trader/investor possesses is a conviction or confidence in his or her game plan. If you don't know what you are doing, you are flying by the seat of your pants, and the chances for success are virtually zero.

Before we begin with the charts, we are going to review a few rules and guidelines. There is a debate as to whether it is more prudent to use trading days or calendar days. As you will see, there are numerous examples using intraday data. As such, the goal was to streamline the data. The time principle is universal, so I've stuck to what is on the chart. The information presented here is exclusively in trading bars, no matter what the time. When we get to daily time segments, keep in mind that calendar days will work a certain percentage of the time. However, calendar days require another set of calculations. Both data sets work concurrently, but you will learn this methodology more easily if we stick to one set of data. It is my observation that trading bars are more precise so that's what we stick with here. After you get the hang of it, experiment on your own with calendar days, and you will see what I mean.

**Rule 1** – All time relationships are (+/-1) unit.

**Rule 2** – The more time relationships that line up or cluster at a single point, the greater the probability of a reversal or breakout.

**Rule 3** – The more time and price relationships that line up or cluster at a single point, the greater the probability of a reversal or breakout. However, if the support or resistance level created by this cluster is broken, it will be broken only by a very



powerful leg. As we progress in the book, you will see the most powerful tops and bottoms occur on a cluster of both price and time.

We are working with chaos theory. Markets can and will do whatever they want whenever they want. We want to identify high-probability tendencies with a profit motive. Nothing works 100 percent of the time. As you will see in the progression of charts, these clusters are very reliable. However, they will give way to stronger moves in all degrees of trend from time to time. When they do, the result is likely to continue much further. For instance, the May 2006 high in the major averages was created on a very strong time cluster. The result was a very strong correction. However, the high in the Dow has been smashed by nearly 1,000 points and by over 100 points in the S&P 500.

The pattern recognition game is one of tendencies and probabilities where we need to be flexible. You should be aware of certain guidelines as they apply to Fibonacci and Lucas time principles.

- Guide 1** – Most reversals or breakouts occur on an important time bar. If we are not at a significant time bar, the trend is likely to continue. This is how we come to recognize false breakouts.
- Guide 2** – Most corrective patterns such as triangles or complex flats will terminate or confirm on a specific time bar.
- Guide 3** – Not only will a pattern complete on a high-to-low (low-to-high) time progression, but it will also complete on a high-to-high or low-to-low progression.
- Guide 4** – A move is likely to commence on an important time bar, which is not the ultimate top or bottom. For instance, we may top on a 55-bar sequence, go sideways, and retest that high. What will happen is the retest may fall short by even one tick of the top but ultimately turn down on a 61 bar.

At the end of the chapter, I will list all of the observed number bars where a trend is likely to change direction. These are not rules as much as tendencies.

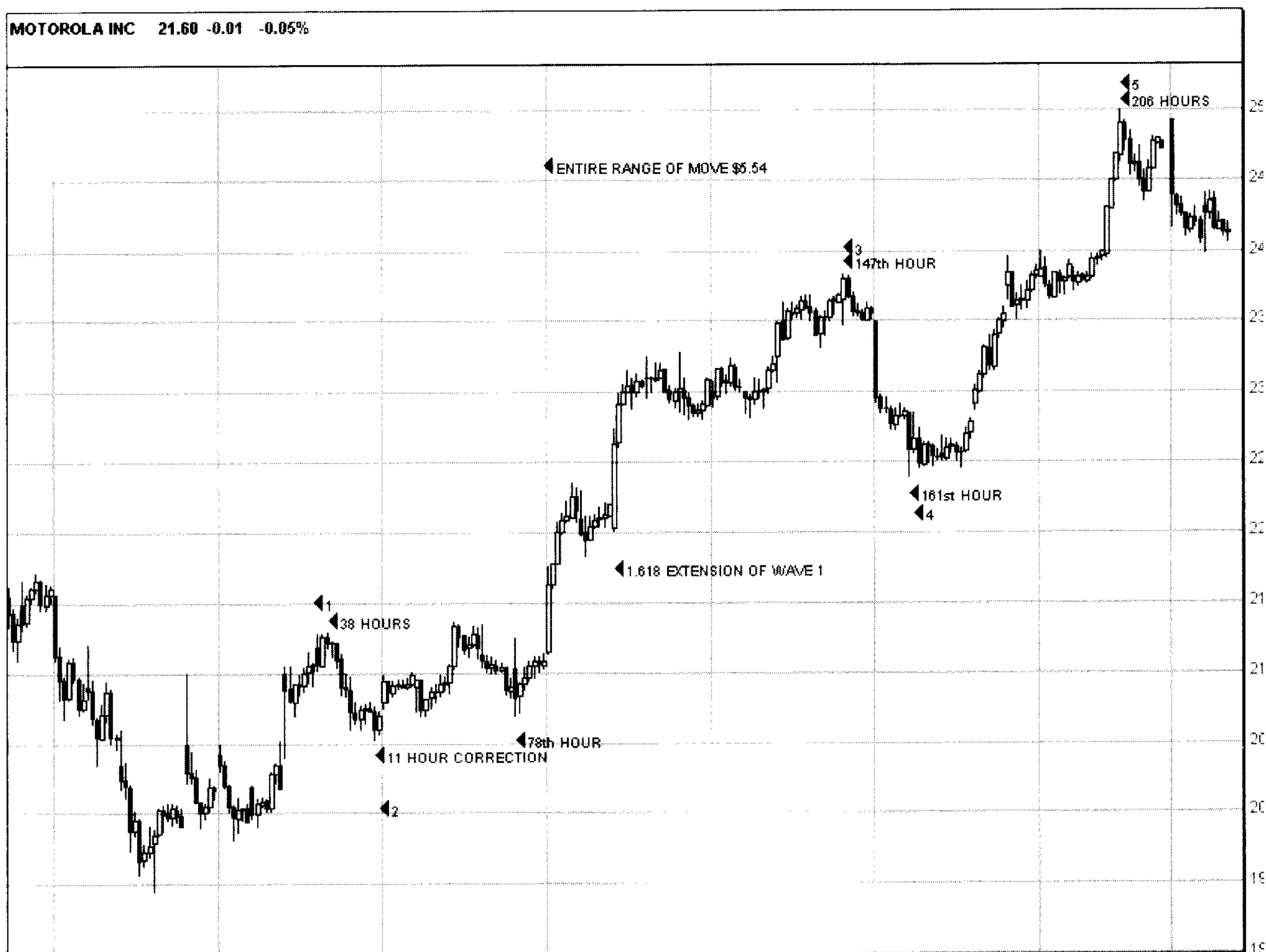
## INTRODUCTION TO TIME RELATIONSHIPS

Let's look at our first example. Figure 2.1 illustrates a 5-wave impulse pattern in Motorola. The first thing to note is the look. Elliott and others stressed repeatedly that a pattern has to have the correct look. We do have a textbook 5-wave sequence, where 3 is not the smallest wave, and 4 doesn't overlap the price territory of wave 1. Those are your basics. Now, let's look at all of the relationships inside of this pattern.

In Figure 2.1, the first thing to note is how the first wave tops in 38 hours: a crucial time bar because 38.2 is a Fibonacci retracement level as the square root of .618. When we are dealing with time cycles, any Fibonacci or Lucas relationship is fair game for a turn in whatever degree of trend we happen to be observing. We followed up the 38-hour wave with an 11-hour correction. Not only is 11 a Lucas number, but when we divide 11 by

**Figure 2.1**

Motorola 5 wave impulse



38, we get 28.9 percent. In terms of time, this means that we had a Lucas 29-percent time retracement.

From that low, the third wave came close to a common 1.618 extension of the first wave. It's not perfect, but the time relationship sheds more light on why the third wave ended where it did. Going back to the first wave, we know we topped on hour 38 and bottomed for the second wave on hour 48. The third wave topped on hour 147, which is a 99-hour wave. When we divide the time relationship between the first and third waves ( $99/38$ ), we get a calculation of 2.605 or just a hair off a common 2.618 Fibonacci relationship.

In this case, we have a time/price cluster of nearly a perfect 1.618 price relationship along with a 2.618 time relationship.

The fourth wave completed on the 161st hour of the move. What usually happens in small-degree, corrective waves is that they will either end on an important number like 161, or the correction itself will end on the correct number of bars or a cluster of the two. In this case, the move ends on the 14th hourly bar, which is a derivative of a 14.6 percent retracement level. In terms of time, the number 14 occurs less often in significant turns. The fifth wave lasts 45 hours and ends on the 206th hourly bar. There are no perfect common relationships in this case, but if we were to scale up to the daily time period, we would see the whole move completed in 29 daily Lucas bars.

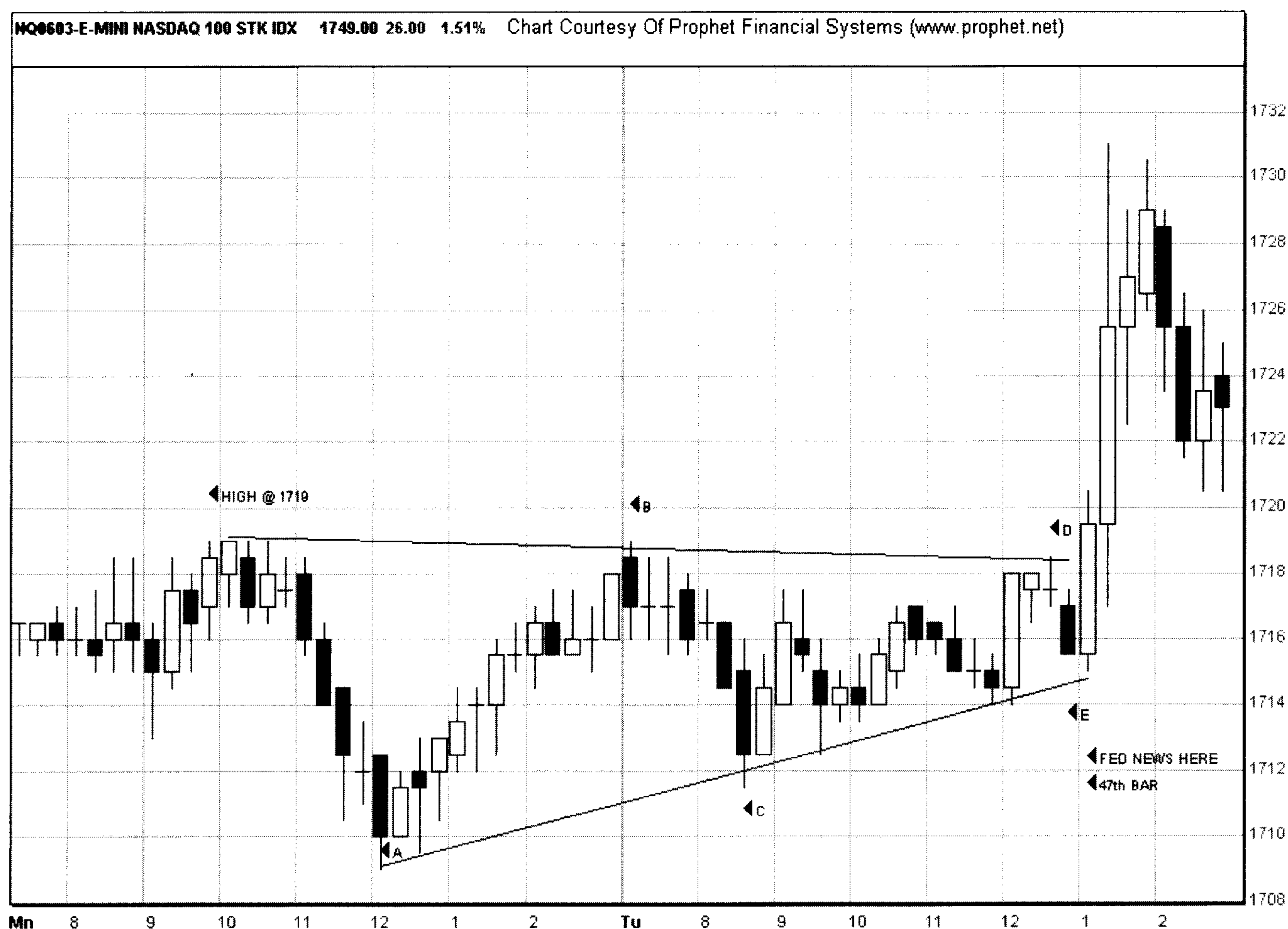
The lesson from this example is that in real time we don't get perfect common Fibonacci relationships in our waves. We need a way to x-ray the waves to understand what is going on underneath the surface. While we do have the proper look of a 5-wave sequence, we could get lost looking for common textbook Fibonacci relationships. When we examine the time relationships, we find the sequence is loaded with good time relationships. They serve as our compass to understand the waves no matter what the wave count is telling us.

The next chart in Figure 2.2 is a perfect textbook example of a triangle that completed in the correct amount of bars. This is likely the best example of Guide 2 and your introduction to the

## Guide 2

Most corrective patterns such as triangles or complex flats will terminate or confirm on a specific time bar.

**Figure 2.2**  
NQ textbook triangle





This pattern consolidated sideways for much of two trading sessions. Upon completion of the triangle, this market jumped 16 points in the next two bars. Internally, we can see the A wave lasted 8 bars, B wave topped on 13, C wave lasted 7 bars, and D wave lasted 16 bars (double 8 or 1.618 derivative). Not all triangles are gift-wrapped so neatly, but many have relationships just like this one and are easily spotted if you know what to look for.

## EXAMINING CORRECTIONS

Our next example shows a common ABC sharp correction in Google. Figures 2.3 and 2.4 exhibit common ABC sharp corrections, first in the context of a much larger move to the upside from November 2005 until January 2006. Figure 2.4 shows the close-up and internal time count of the move.

In Figure 2.3, observe this pattern where first there is an A wave down followed by a B wave triangle and finally a shorter C wave down. In terms of price, the C wave is .618 times the size of the A wave. The shorter C wave in terms of price is common in strong moves either to the upside or to the downside. It is also interesting to note how the A wave is 5 hours in duration, whereas the C wave is 8 hours in duration, which is also the .62/1.62 relationship we look for. In terms of time, the C wave may have been the longer wave, but it was only able to take prices down .618 times the length of Wave A. This works on the market exactly the same way as volume does. During a pullback, we will see selling volume dry up, which enables the larger degree move to continue. In this case, the leg may have continued down for an extended period, but the selling pressure wasn't there.

The wave ended near a small degree 61 percent retracement level, but perhaps more important, concluded in 56 (Fibonacci +1) hours.

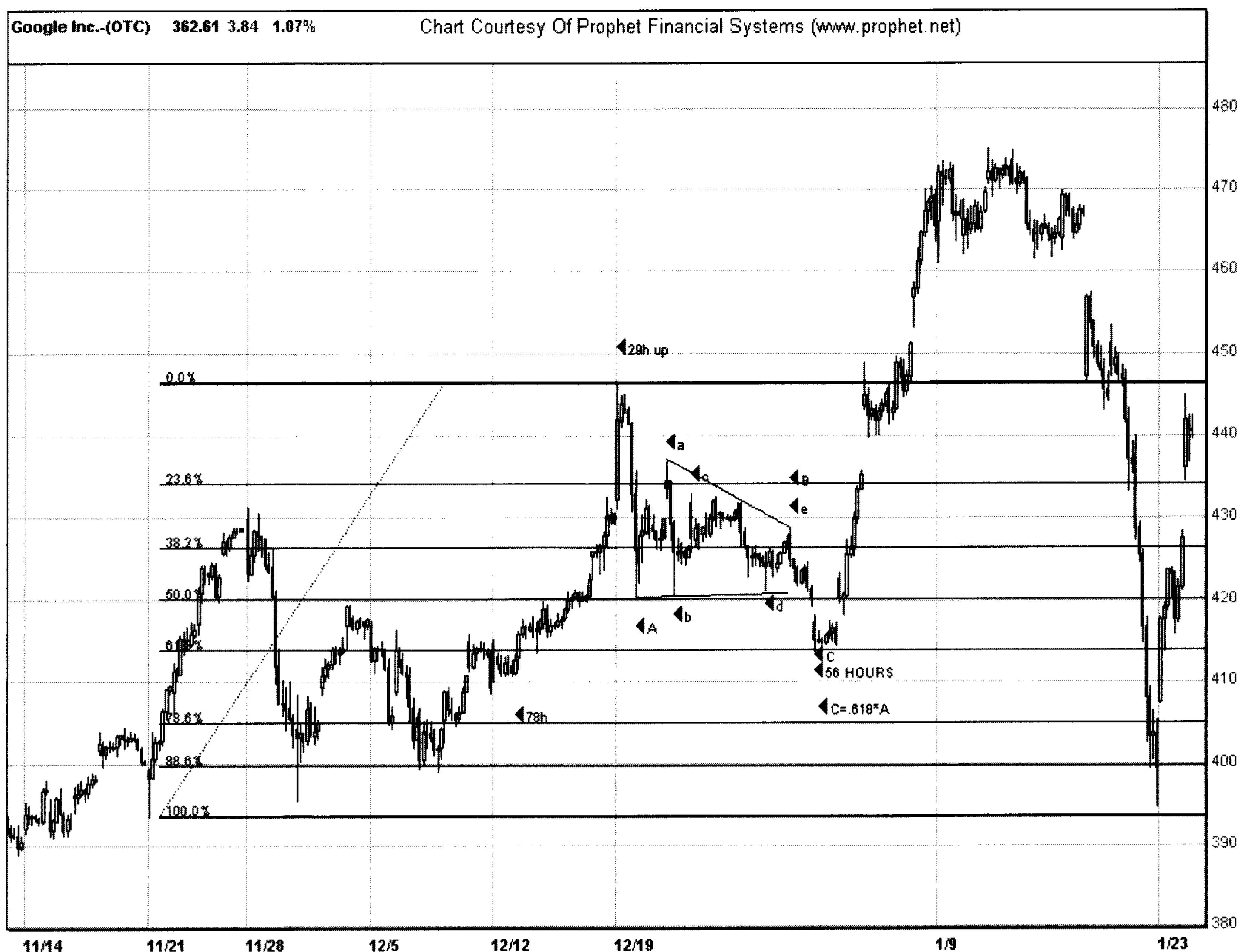
The internal count of the triangle is somewhat complex but completes in close to 45 hours. Including shared bars, there is a total of 56 bars, and the A+C waves make up 13 of those hours. When we divide 13/45, we get .288889 or very close to Lucas 29. Don't get wrapped up in these complex calculations—when you want to pull the trigger on a trade, you shouldn't do too much thinking. I only illustrate this because all triangles will have some important time calculation, whether it is obvious or not. However,

there are smaller high-to-high cycles inside of this triangle that are more obvious. For example, from the wave high at 437, we get three 7-hour high-to-high cycles in a row. In addition, from the larger A-wave low at 420, count 29 bars and you will see the big black candle at 432, beginning the final descent to 414.

What is most important here, and will be covered in the chapter on candles, is the pattern recognition aspect of all this. From A-wave low to hour 29–30, we have that large black engulfing candle, by far the most important point on the chart.

**Figure 2.3**

Google ABC Correction

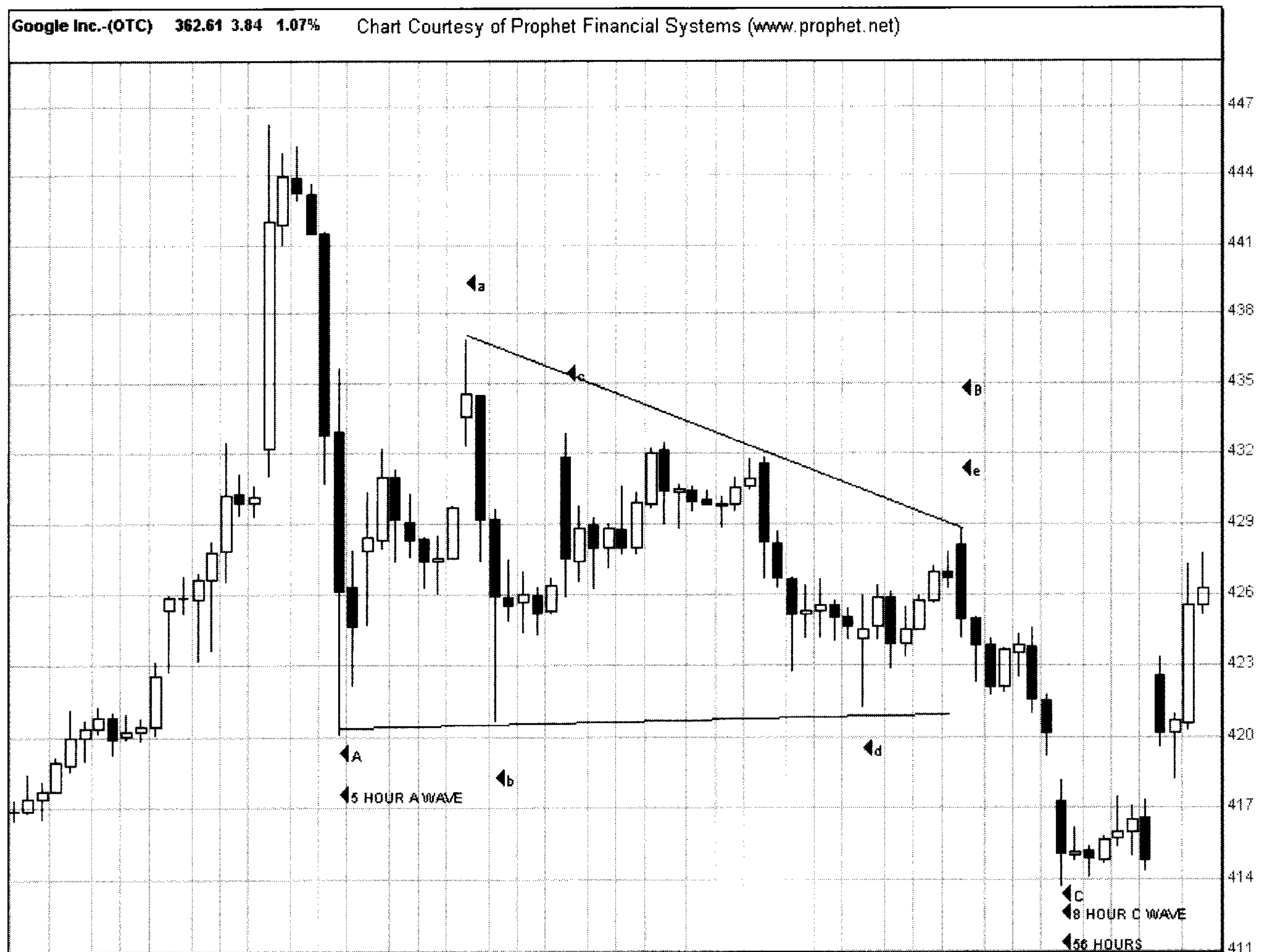


## Complex Sideways Correction

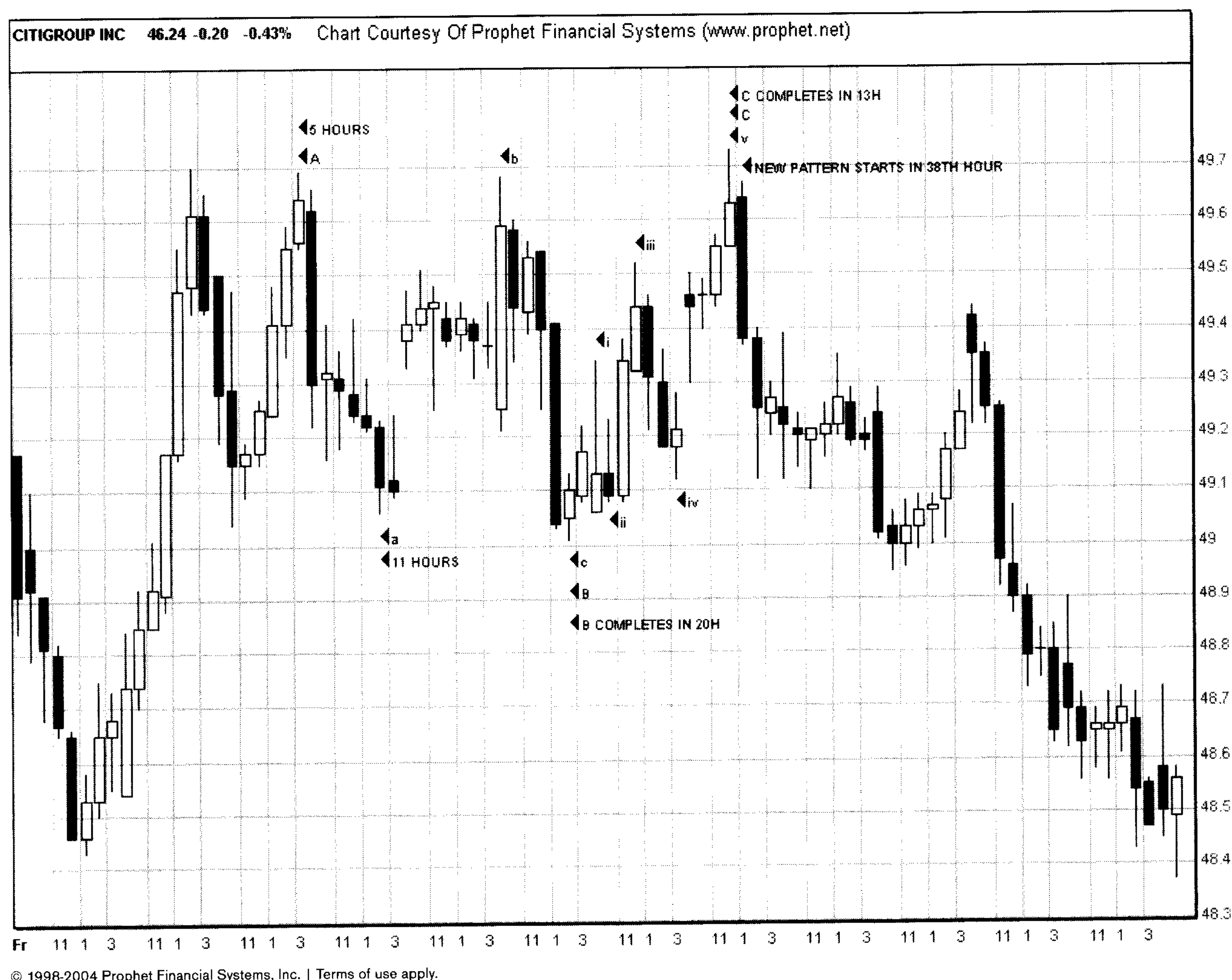
The next example in Figure 2.5 is a flat pattern also known as a complex sideways correction. Recall from Chapter 1, this is a pattern where all the legs are roughly equal. In this case, we are looking at an hourly chart of Citigroup from late 2005 in a larger ABC down. The flat pattern is the B-wave consolidation before a larger drop. The orthodox top is at 49.70 at the left of the chart. From there, we had a first, or A-wave, drop to approximately 49.05 where we pick up the action.

The A-wave up was 5 hours. Flat patterns in real time are very tricky to figure out because we are not sure of the outcome until most of the pattern develops. The best thing to do then is count the bars from either a high-to-high or a low-to-low basis.

**Figure 2.4**  
Google ABC Closeup



**Figure 2.5**  
Citigroup complex sideways correction



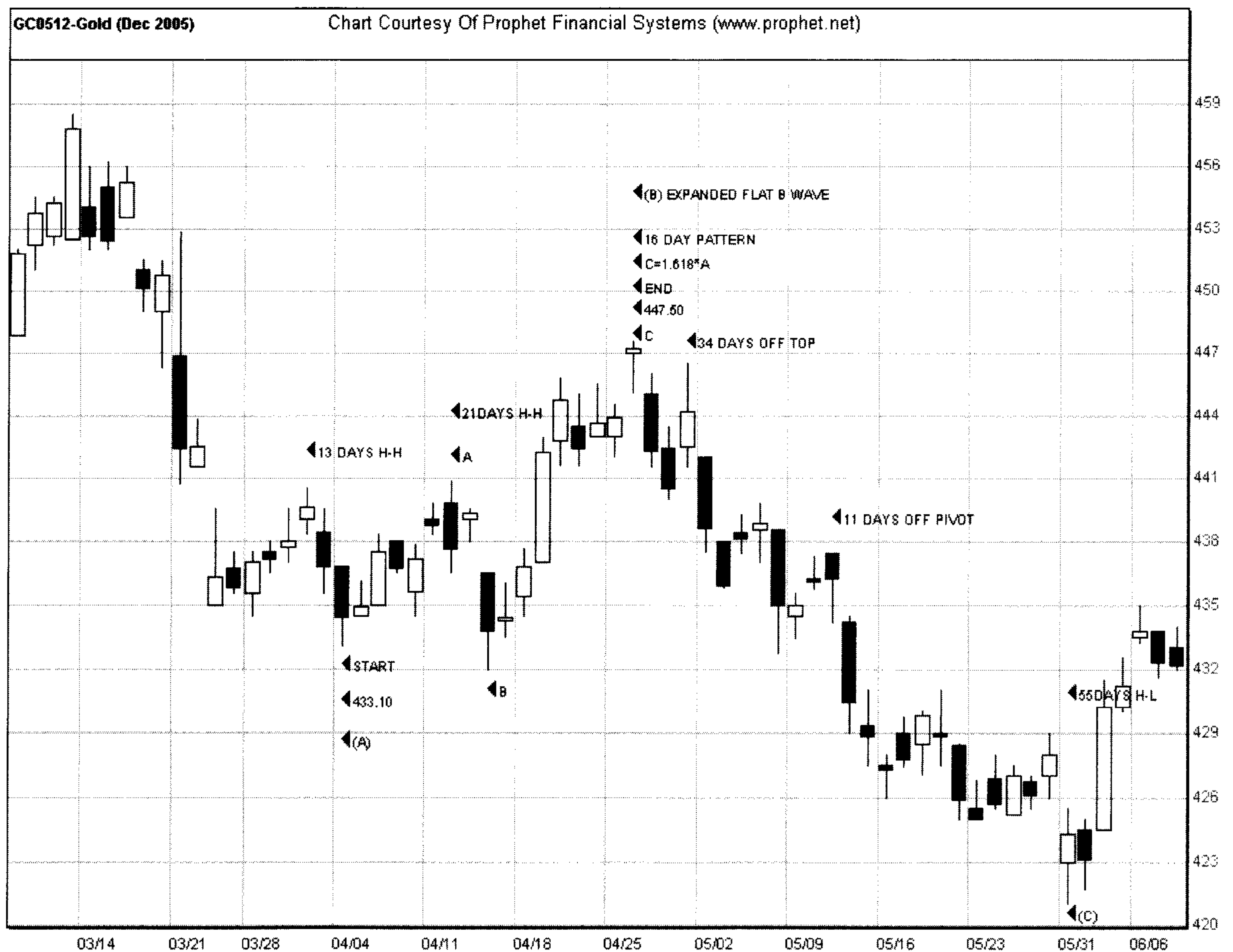


The C wave makes a new high on the 13th hour but leaves an upper tail. With the next black candle, it ultimately fails at resistance. The black candle is 38 hours from the A wave low at 49.05 where the larger C wave kicks into gear. It is important to note that the C of the flat makes a new high. Sometimes, a flat pattern will violate the prior fifth wave top. As we know, the purpose of B, or second waves, is to reproduce the sentiment of the prior trend. In this case, we get an emotional reaction that takes out the high briefly.

## Expanded Flat Correction

Figure 2.6 takes us to the expanded flat correction. In this case, we had an ABC corrective pattern from early March until the end of May 2005,

**Figure 2.6**  
Gold expanded flat correction



which is part of a larger triangle that began in December 2004 and completed eight months later in August 2005. Here, we are concentrating on the B wave. We start at the (A) wave low at 433.10 in early April. This pattern traces out an up leg that fills a gap left during the fourth week of March, then promptly turns around and sets a new price extreme low. Finally, it turns around and spikes up to 447.50 to complete C of (B) to end the corrective pattern before dropping down to 421.

What is confusing about this pattern is that when you go back to the eighth bar off the high (a small white candle that leaves an upper tail at 435 the week of March 21), it looks like it could be tracing out a triangle pattern. This might be the case, but the internal calculations don't work as well for a triangle as they end up for an expanded flat.

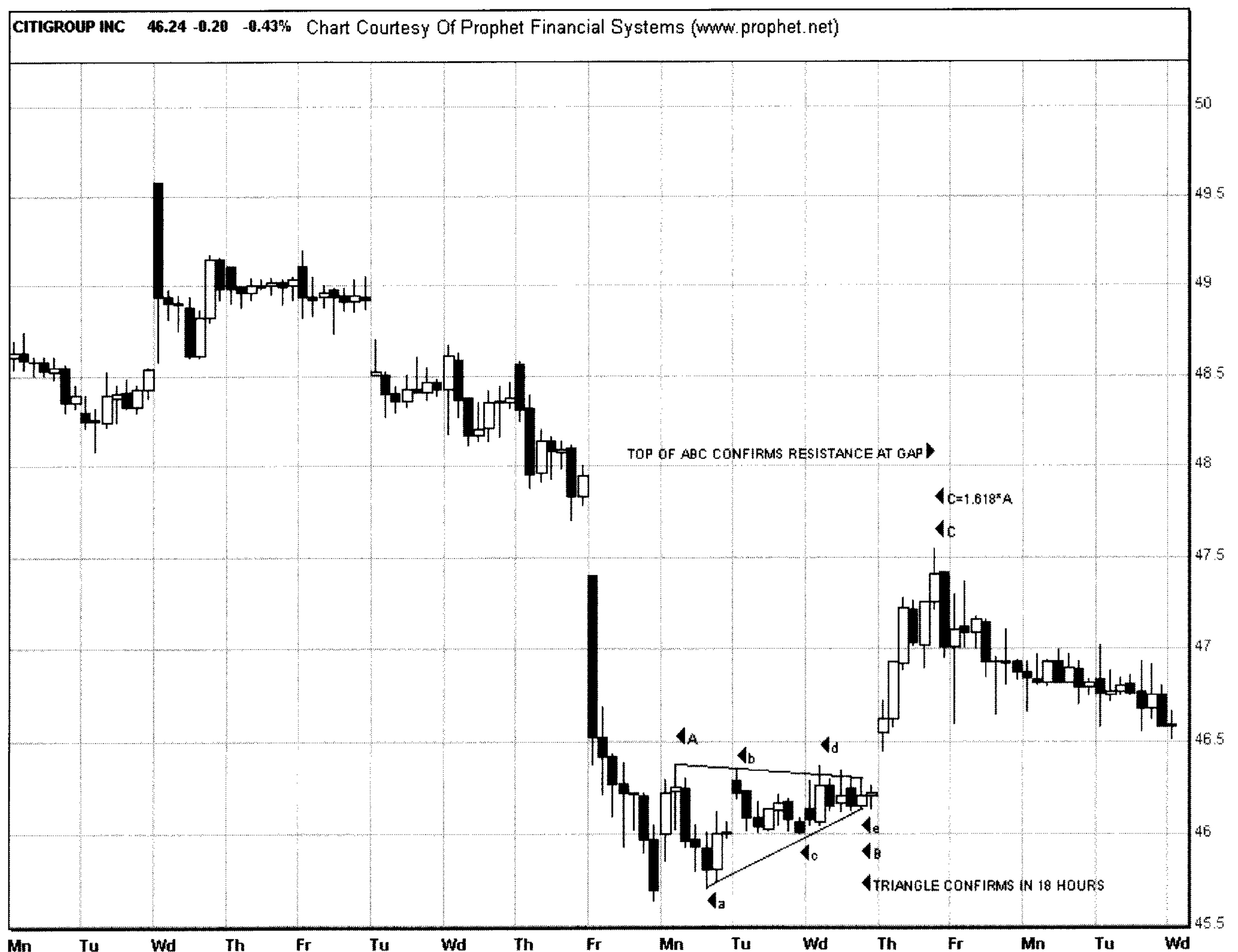
There is a certain part of the Elliott community that gets extremely wrapped up in the academia of these waves, as stated in the last chapter. I get e-mails every day from people who follow waves to such extremes that they miss the whole point of why they do it in the first place. We are looking at a completed pattern here in a textbook. In real time, the situation is much more complex. The whole idea is not to be committed so much to the exact pattern at hand as it is to have a general idea of what we are dealing with. Whether you thought this pattern was a triangle or an expanded flat in real time doesn't matter. The idea is that if you were looking for some type of B-wave correction, you would end up being on the right side of the move when it completes. The goal of this chapter is to show you the entire catalog of patterns in real-time applications so you will recognize them more easily the next time you see them. As you can see, the real-time applications are somewhat different from textbook drawings.

In any event, this expanded flat comes very close to the common Fibonacci price relationship where  $C = 1.618 \cdot A$ . It's not shown in this diagram, but the C wave of this expanded flat completes in the 61 percent price retracement off the top of the move. The entire expanded flat completes in 16 trading days. Finally, is this really an expanded flat or is it a triangle? Note the price where the pattern begins and ends. The (A) wave low is 433.10 and the (B) wave top is 447.50 for a move of exactly 14.40. The price of 14.40 is 1/10 of 144, which is a very important number from a Fibonacci standpoint and a financial geometric aspect.

Let's introduce another important concept. Many moves will not only complete in the correct time sequence, but the size of the move will also correspond to a Fibonacci or Lucas number. Does this happen every time? No, but it does occur frequently enough to use. We will see entire moves complete in 13 points or 61 points or 144 points. On intraday charts, we will see moves complete in 4.70 or, in the case of currencies, 47 cents. This is just another guideline to be aware of and use as a tool. Don't get wrapped up in it, but be aware of the pattern recognition aspect.

As I stated in the first chapter, one of the missions of this book is to take away much of the subjectivity of Elliott. Where does a wave begin and where does it end? Looking at the price action and seeing a correlation to a specific number pattern may be the final clue. In this case, the 14.40 tips the scales in our favor to conclude that this B wave was a high-probability expanded flat.

**Figure 2.7**  
Citigroup typical ABC Pattern



## IN-DEPTH LOOK AT TRIANGLES

Let's look closer at triangles. Figure 2.7 shows Citigroup in a typical ABC up where the triangle is the B wave. From the top of A, this pattern confirms in 18 hours. From the low near 45.60 to the high near 47.52, C has a 1.618/.618 price relationship with A. Inside the triangle, C down has a .618/1.618 relationship with A down.

Although this is a textbook example of how a small triangle completes in the correct number of bars, there are a couple of other important relationships. First, look at where the C wave tops near 47.50. Notice the gap down near 48–47.50 four days earlier. This gap has the potential to act as resistance but needs testing and confirmation. The C wave fails right at resistance. This confirms resistance, but there is another not so obvious relationship on this chart. Go back to the start of this down leg at 49.52 and count the bars. You will find this C wave tops in the 76th hour off the high. In the next chapter, I will show you how these high-to-high cycles are great clues in recognizing the prevailing trend. Putting all of this together, we have a small ABC sharp correction in a downtrend. The ABC pattern contains an 18-hour, B-wave triangle that confirms. We also complete the correction with common Fibonacci price relationships that confirm a gap as resistance, and we do it in the correct number of hours in the larger degree trend. Need more confirmation? The turn down at the gap shows a candlestick evening star reversal pattern that gives you a low risk/reward trade if you place a stop one tick above the high.

### Thrust Measurement

Figure 2.8 is an hourly chart of a Google triangle and illustrates some very important triangle principles. Note that A and C down have an approximate 1.618/.618 relationship to each other. This doesn't always happen but occurs often enough that we should be aware of it. Look at the various time relationships that confirm this triangle. The B-wave high tops in a 29-hour, high-to-high cycle, and the C-wave low bottoms in the 55th hour of the pattern. Finally, the E wave of the triangle completes in the 77th hour and the breakout in the 78th.

This pattern illustrates thrust measurement. Thrust measurement is a tool to project a target price for the fifth wave completion. The correct way to do this is to wait for the completion of the triangle and draw a

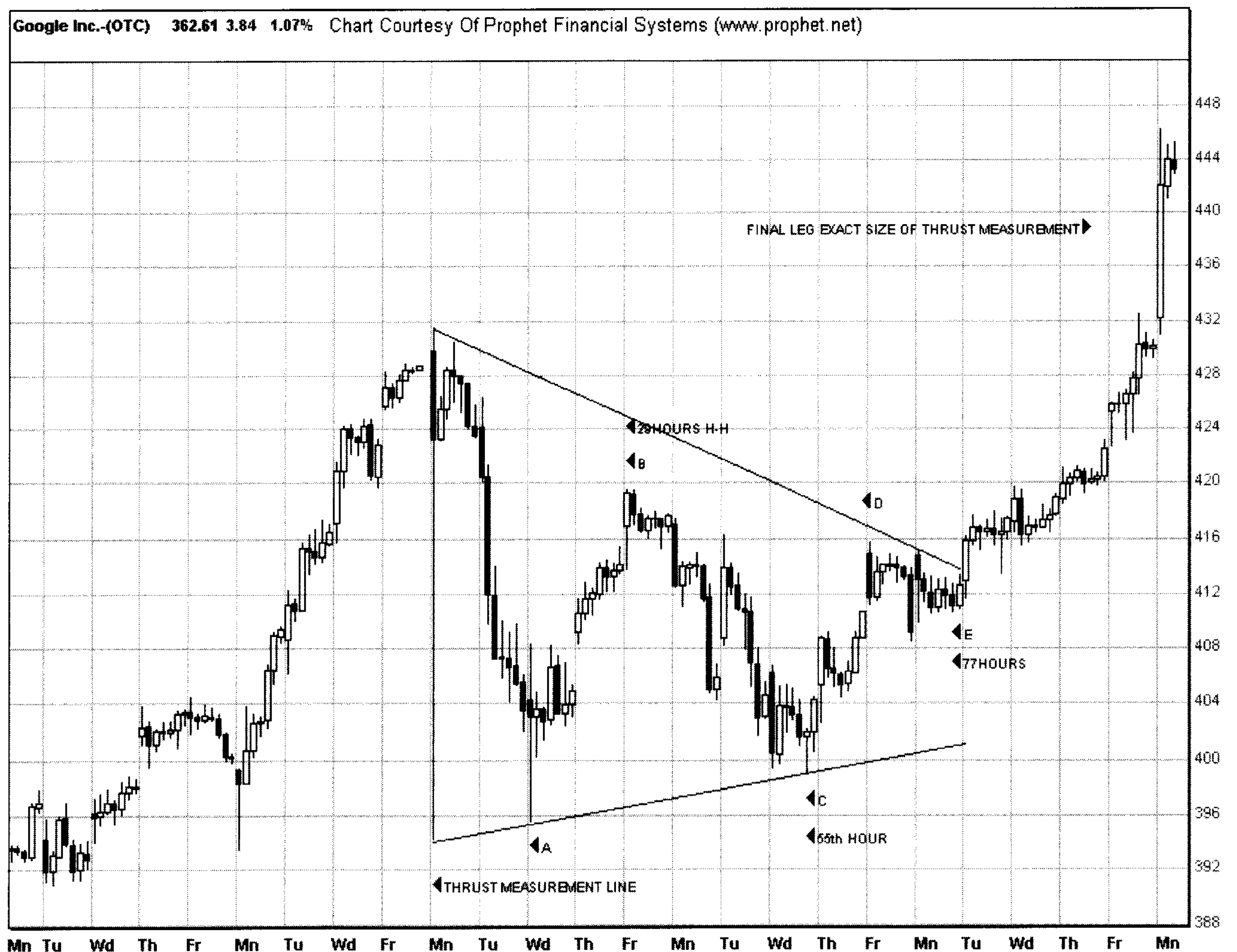


line connecting both the A- and C-wave lows. We don't take the price length of the A wave. Rather, we take the point in time from where the triangle started (which is the end of the prior move up), draw a line straight down into space, and extend the triangle line that connects the A and C wave lows.

In this case, we have a thrust measurement line from 394 to 432, or about 38 points. We can see the move off the end of the triangle started at roughly 411 and topped at 447, or 36 points. Sometimes these projections will work out perfectly, but most of the time, this is a tool to get an approximate target point for the completion of the fifth wave.

You must use common sense when expecting this tool to work. It works best with fourth-wave triangles after an extended move. It tends not to work out with B-wave triangles at the start of corrections. For instance,

**Figure 2.8**  
Google Hourly Triangle



let's say we start a countertrend move after a complete 5-wave sequence of 1,000 Dow points (in either direction). Let's say the A wave is 200 points, and we start a pullback. Let's also assume we are going to retest the move with a 61 percent correction. That means we expect the Dow countertrend move to be roughly 660 points. If the A wave measures 200 points, we go sideways for several days, and the thrust measurement only retraces 50 percent, or 100 points, it is very likely that a thrust measurement isn't going to work.

There are two principles at work here. An A wave of 200 points calls for a C-wave extension of 1.618 or 2.618, which would mean a move of 323–523 points from wherever the B-wave triangle completes. If the B wave measures 100 points, you can forget about the thrust measurement. On the other hand, we can anticipate a thrust working out if the majority of the move is already completed. In the case where an A wave is only 200 out of a potential 660 points, it is obvious that a 100-point retracement won't give you a target for the end of the leg. The numbers don't add up. During the process of this theoretical 523-point correction, let's say this C wave completes the third wave and starts a small-degree triangle. We can then start thinking about projecting the top of the move based on the thrust from the triangle. The moral of the story is that thrust measurements work better after big moves, not before them.

### **Remember**

To close the gap and confirm the pattern, we look to the time element. I look for the completion of the pattern to coincide with a time relationship.

What we want to see in our triangles first is the correct look. Second, we want to see that at least two of the waves have the 1.618/.618 common price relationship. It doesn't always work out that way, but it does a very high percentage of the time. To close the gap and confirm the pattern, we look to the time element. I look for the completion of the pattern to coincide with a time relationship. If I don't get it on a daily, I usually get it on the hourly or smaller time-frame. If for some reason I don't get it exactly on the completion, I can usually break it down into component parts. What that means is one or more of the legs will have a perfect time relationship, and more than likely, one or more of the legs will line up with the correct number of bars in a high-to-high or low-to-low time cycle. The next time some Elliottician

hypothesizes about a particular pattern, you can check their work with a time confirmation.

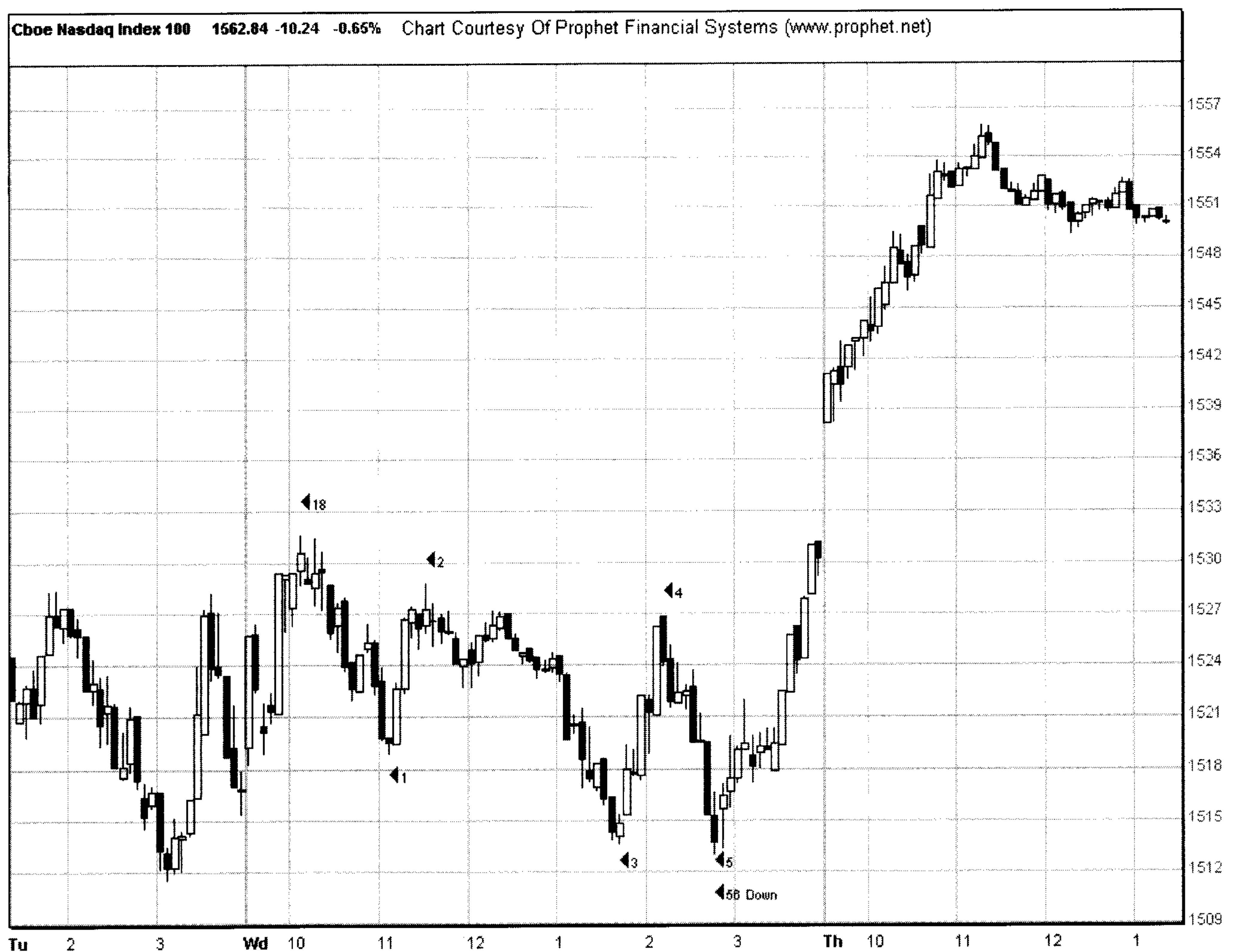
## THE OVERLAP RULE

One of the most important rules of understanding Elliott and the implications of whether the action will break up or down is the overlap rule. I covered this in the first chapter, but I want to illustrate this principle with some real-world examples.

Figure 2.9 illustrates a pullback wave off the bottom of the sell-off leg in early June 2006 in the NDX. This leg is properly counted as an ABC down. However, for teaching purposes, I've intentionally labeled the move

**Figure 2.9**

NDX Overlap Correction Example



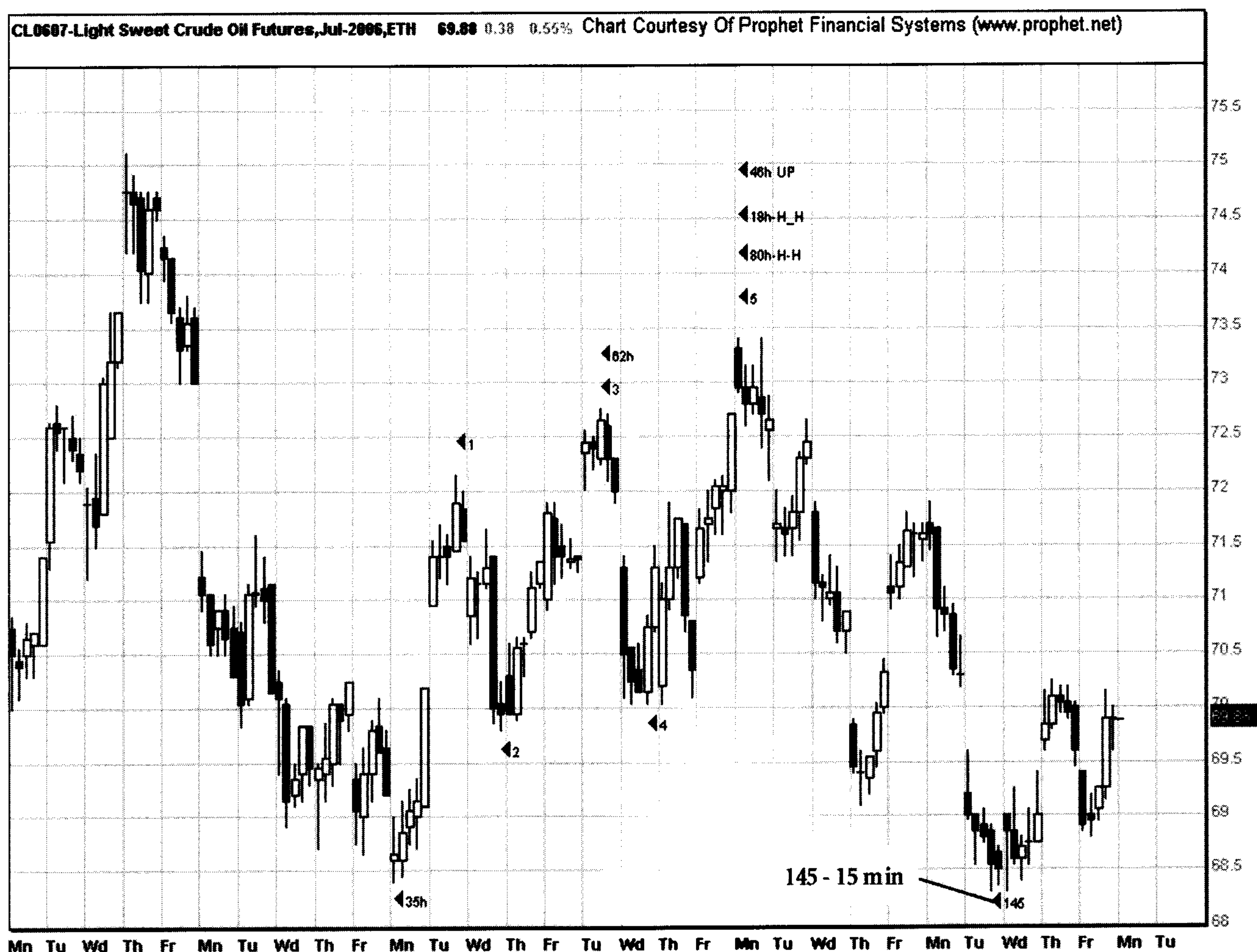


as waves 1–5. I've done that so you can see the overlap. As you can see, wave 4 invades the price territory of wave 1. When we see conditions lining up like this, it is a tip-off that the pattern is corrective and the result will be a continuation of the move. In this case, we had an 18-bar move off the bottom. Whichever way you label this correction, it is a 56 bar, 5 overlapping wave that confirms a low. What is certain is the pattern completes in 56 bars. That is a fact. As you can see, what happens next is an explosion to the upside. During the wave progression, the only clue about what would happen was where the overlap would end. Our high-probability tendency gave us a good clue.

Figure 2.10 shows the exact same principle. This is an hourly chart of crude oil. We have five overlapping waves to the upside that test a gap of resistance. Again, I've labeled the waves 1 to 5 so you can see how the

**Figure 2.10**

Hourly Crude Oil Overlap  
Correction





fourth wave violates into the price territory of wave 1. Once the fifth wave (really just a small-degree C wave of an ABC) ends, the next leg down retraces that whole overlapping sequence up to create a fresh low.

Although the purpose of this leg is to show you how overlap works, I snuck in a few time relationships so you can see how apparent they are. What I've counted as wave 3 up completes a small-degree 62-hour, high-to-high cycle with the original high near 75. We had a small-degree fourth wave down, which overlaps 1, but the fifth wave in the sequence completes an 18-hour, high-to-high cycle. This high-to-high cycle also clusters with the entire five-wave sequence, which completes in 46 hours. Note that we have an 80-hour, high-to-high cycle off the original high, which is not a Fibonacci sequence. We can argue that an 80-hour cycle is a Fibonacci  $8 \times 10$ , but

**Figure 2.11**

Dow Overlap  
Correction 2004



I think it's a stretch. What is important here is that the leg completes on a two time-frame cluster. On a technical basis, it fills the gap down and fails at the top of a resistance zone. Finally, the entire move completes in 145-15 minute bars (Fibonacci 144+1) from the original top, as you can see at the bottom.

Figure 2.11 shows the Dow correction of 2004 (the NASDAQ had a similar pattern). Sentiment at the time was such that the highs made in January and February 2004 represented the end of the big 2003 rally and a likely resumption of the bear market from 2000 to 2002. This was a mistaken assumption since this leg was very choppy with overlapping legs throughout.

This leg also represents another concept important to Elliott. Impulse waves are considered as 5's, 9's, and 13's—although 13's are rare. Corrective legs are 3's, 7's, and 11's. As you can see, this leg is clearly a 7. It is also loaded with its share of good time relationships. The first two high-to-high cycles are 34 and 55 days. They complete a larger 89-day, high-to-high cycle. The next to last low completes in a Lucas 123 days. The whole pattern completes in 173 days, (not a correct time bar). However, when we look to the weekly chart, this entire pattern completes in 35 weeks (Fibonacci 34+1). The entire leg off the bear market bottom is approximately 71 weeks and with a 35-week pullback, we had an approximate 50 percent time retracement. Much of this may seem like a lot to remember, but it is like anything else that is new. Once you get the hang of it, these concepts will be second nature to you. Later in the book, we simplify concepts and show you the most important things to look for. Now we are laying the groundwork. On this chart, we are combining the time principle with patterns you may have been working with for years.

## Ending Diagonal Triangle

The final pattern in the Elliott catalog is an ending diagonal triangle. This pattern has the shape of a wedge and is the only pattern that allows overlap and that is still considered an impulse wave. As mentioned earlier, the overlap aspect of this pattern can confuse market participants into mistaking it for a countertrend correction. The problem is that it completes and turns up going the other way for good.

Elliott literature states this pattern has measurements of 5 being  $.618 \times 3$  and 3 being  $.618 \times 1$ . This is great in the textbook, but in reality, it doesn't always work this way. The most important concept to take from this discussion is the look and shape. Are the trend lines converging? If so, is it in a C or 5th wave position where it can be an ending pattern? These considerations are much more important than the exact textbook measurements.

The theme of this book is that all patterns should confirm to some time element. Ending diagonals are no different. The example here is a 30-minute Cocoa chart (Figure 2.12). This particular wave is the fifth wave of a B, or second, wave move that confirms a low. The entire pattern is not shown, but you can see what happens when the wedge completes.

**Figure 2.12**  
30 minute Cocoa  
Ending Diagonal



**Table 2.1**

Fibonacci	Lucas	Ratio	Sq. Root	Der/Root	144
5	7	.146	.382	118	36
8	11	.236	.485	121	72
13	18	.382	.618	129	108
21	29	.618	.786	134	180
34	47	.786	.886	141	216
55	76	1.27	1.12	147	288
89	123	1.618	1.27	155	324
144	199	2.618	1.618	176	360
233	322	4.236	2.058	189	
377	521	6.854	2.618	236	
610	843				

This particular pattern completes in 48 (Lucas 47+1) bars, but if you look closely at the first and last bar, each made very quick turns. We can make the case that this actually spent 47 complete bars (counting shared bars) going down. The internal count shows a 16-bar drop followed by two more 16 low-to-low cycles. What follows is a fantastic looking impulse wave to the upside where you can see five impulse waves. This ending diagonal has the look and does the job.

As we go forward, Table 2.1 should be your guide. I've included the most important time window numbers. All Fibonacci and Lucas numbers can be considered high-probability windows. The ratios and square roots listed above are important as well. What that means is we can have turns after 61, 78, 127, 146, 161, 261, 423, and 685 time units. It is the same thing with square roots and derivatives of the Fibonacci/Lucas numbers. This is not a book on harmonic vibrations, but I've included the most important observed multiples of 144 as well. You will see all of these numbers throughout this book.

The markets speak a unique language of numbers. Not only will these numbers correspond to important pivots, but many times price action will change direction on Fibonacci or Lucas price points. They will also



turn on dates that correlate to these numbers. Remember that the market turned on October 8, 2002? What is that date? 10/8 or 108, is it not? What about some other pivots? There was August 13, 2004, which is 8 and 13 (Fibonacci numbers); or in 2006, the markets bottomed on July 18. The SOX topped in 2006 on January 27 (1.27). These numbers are of secondary importance to your trading, but there are no coincidences in financial markets.

What have we accomplished in this chapter? We've advanced beyond basic Elliott pattern-recognition methodologies and shown you that these time elements do exist. Now that you have an awareness of what market precision looks like, you can start to tune in to it. But, this is just the first step. Now that you know these sequences exist, you must learn how to interpret them.



## 3 | ROTATION IN THE MARKETS

Now that we've set the stage by explaining the basics of how the time factor confirms Elliott, let's have some fun. Forget about trading and financial markets for a minute and pretend you are the starting QB or coach of your favorite pro-football team. There are 32 teams in the National Football League, and they all pick talent from the same place. Every February, all the coaches go to the Scouting Combine in Indianapolis, Indiana and analyze the same players. If they are all digging from the same well, why do some draft better than others?

Because there isn't much difference in the talent level from one team to the next, why are some organizations more successful than others? Why do certain coaches win wherever they go? Just like anything else in life, luck plays a part, like injuries and bad calls, but these are excuses. Teams can make excuses about why they don't win just as traders can make excuses about why the market went against them. Real winners don't complain.

I was always fascinated by how Dick Vermeil would spend 18-hour days at the facility and sleep on the couch in his office from the time training camp opened until the season ended. I'm sure it didn't do wonders for his

marriage, but he succeeded at every level of football with timeless techniques and strategies. He took the Philadelphia Eagles to the Super Bowl in 1980. He then retired from coaching only to come back 14 years later to win the Super Bowl.

### **Rotation**

Rotation can be defined as the organization of how price bars cycle to determine uptrend, downtrend, or sideways correction.

The better the organization of the bars, the stronger the trend will be. Bull phases rotate or spiral differently than do bear phases.

What separates the mediocre from the good and the good from the great? Preparation. That's it. In a business, where competition has the same level of talent, victory usually goes to the group that prepares the best. Everyone watches hours of film to find that edge. They are all looking for the tendencies of the opposition. They want to know what XYZ team is going to do on first down, third down, etc. They spend hours developing a strategy for every imaginable situation. They want to know the strengths and weaknesses of the opposition so they can create a winning game plan.

Bill Walsh was the first coach to script plays. He knew the opposition scouted for his tendencies, so he created 15 plays to start every game. No matter what the situation was, his team ran those 15 plays whether or not it was the correct thing to do in the situation. Why did he do this? He didn't want to be predictable. It was a good strategy because the opposition never really figured him out.

In this chapter, I introduce the concept of rotation; one you won't find in any other book on financial markets. Rotation can be defined as the organization of how price bars cycle to determine uptrend, downtrend, or sideways correction. Think of weather patterns. Certain conditions are better organized than others. Think of a hurricane. What does the weather guy talk about? He talks about how well the spiral of the storm is organized. Notice how the strong category 3–5 storms have a much tighter rotation around the eye wall than do category 1 storms or even tropical depressions. Category 1 storms have weak spirals around the eye. You can barely make out the eye. Recall how obvious it was to see the eye wall on a storm like Andrew or Katrina.

Financial markets work the same way. The better the organization of the bars, the stronger the trend will be. Bull phases rotate or spiral differently than do bear phases. Most technicians or Elliotticians realize a bull phase will move north of some moving



average but eventually extend and come back to the mean. In other words, a bull phase creates a low to high to low cycle. From now on, we'll call it a low-to-low cycle. A bear phase is just the opposite. It will start at some high, drop for X number of points below the mean or moving average, and come back up to it. In other words, it's a high-to-high cycle. Many Fibonacci analysts will track the bars from north to south or south to north.

Here we not only do that but also complete the roundtrip. Why? Financial markets trend in moves that have the shape of triangles. In this case, I'm not talking about a contracting or expanding triangle in the context of the Wave Principle. Draw a line from any important pivot low to a high and back to the next important pivot low. What do you get? In every case, it's a triangle.

Most people don't realize that financial markets' high-to-high or low-to-low cycles will complete on either a Fibonacci or Lucas time bar. When we recognize that fact, we've uncovered the most important tendency in financial markets. I call these spirals "Wave Rotation," and we are either in a bullish or a bearish rotation. In the early phases of moves, when it is not obvious if the prior trend has completed, it is the recognition of how a wave rotates that will give us a major clue if the trend has really changed.

The most important exercise in this methodology is tracking the bars. Tracking the bars is the same as monitoring the waves or the shape and size of a candlestick. First, you must keep a running count. This does require extra work and, at first, may seem burdensome. However, many traders will keep four or five technical indicators below the price action, which often give contradictory information. Isn't that also burdensome? Why not use a methodology that is more effective and cuts to the bottom line of what is actually driving the action?

Remember that counting bars only gets you to the starting gate. It is the equivalent of learning the alphabet. You can't make words without the alphabet, but it does require training to get beyond that level. Each particular bar has a meaning and implication to the overall scheme of things. The good news is we don't have to be overly wrapped up in the meaning of EVERY BAR.

Let's assume you buy into the fact that keeping a bar count is a worthwhile exercise. Now we are going to give meaning to those bars.

## BEAR ROTATIONS

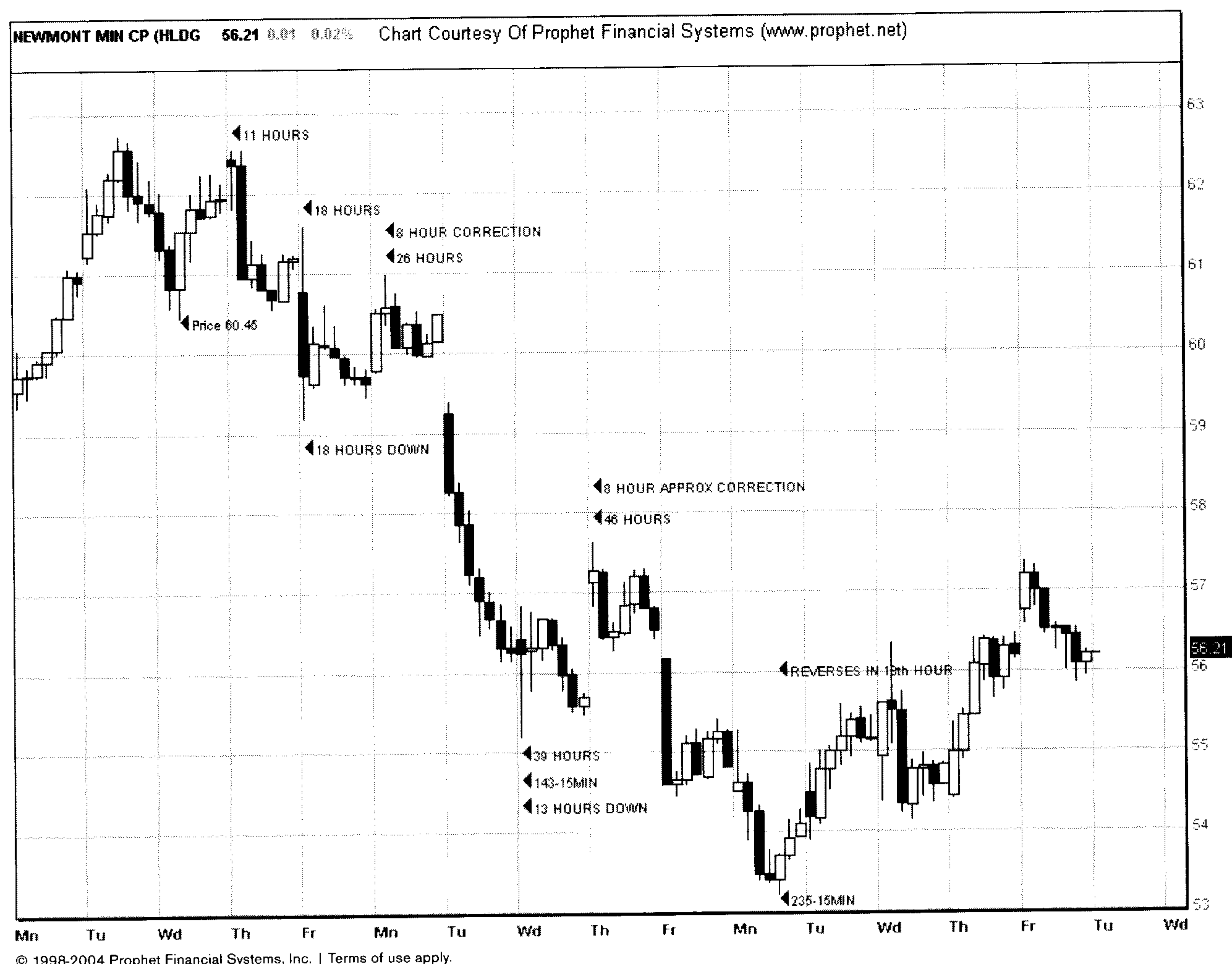
Our first example, Figure 3.1, highlights a bear leg for Newmont Mining (NEM). All stocks, indices, futures markets, and Forex currency pairs work the same way. I would suggest you study this chart repeatedly. When you get the hang of it, apply the concepts to your favorite market or stock.

The first sequence is a high-to high cycle that completes in 11 (Lucas) hours. You can see hour 11 produced a hanging man candle followed by a large bearish engulfing bar, implying a failure of the retest of the high.

**Figure 3.1**

Newmont Mining (NEM)

Bearish Rotation



This now is strong resistance. Notice the next spike up was on the 18th hour of the trend. This is what I mean by rotation or spiraling. A bear phase will either spike or create a high on the chart on a Fibonacci or Lucas number bar within plus or minus one. What I observed after thousands of hours is the strongest moves will exhibit the spike right on the number. The third spike in the sequence completes on the 8th hour after the 18th spike bar. Up to this point, you've had three opportunities to go short. They were 11-hour, 7(18th)-hour, and 8(26th)-hour, high-to-high cycles.

Follow the progression of the 3rd wave. From the 26-hour spike, it moves another 13 hours to create a small degree low with that hammer. That 13th-hour low is also 39 hours off the high (Fibonacci 38.2) and 143-15 minute bars off the top. The next spike high is in the eighth approximate hour, which clusters with the 46th hour off the top. In other words, the 47th hour starts the final leg down and this final leg completes in 18 hours. What is not shown, but is highlighted, is that the whole trend completes in 235-15 minute bars, which are off by 2 from 233. In a 10-day span, there are no fewer than 12 important time relationships on this chart. There are probably many more if I choose to count what might have been going on at the 5-minute level.

There are a few other relationships on this chart. In terms of price, the action is somewhat choppy and would best be counted as an ABC down as opposed to a 5-wave impulse. This is because the spikes at the 18- and 26-hour marks both invade the price territory of the first small leg off the top. This applies to the overlap rule.

Still, there are three major thrusts to this move. If you go by strict Elliott interpretation, what you would call the first and fifth waves do not have a .618/1.618 common price relationship. However, when you put the time x-ray on these legs you will see each is of 18-hour duration. In terms of time, you could say  $1 = 5$ . Then, when you measure the leg from the top all the way down to the hammer on the 39th hourly bar, you will see it has a 1.618/.618 price relationship with the last move starting on the 47th hour. So this best counts as an ABC down where  $C = .618 \cdot A$ . The

Ask yourself the following question. Do you need to know the exact wave count when you really just need to understand the tendencies of what the bars can do? Understanding when a spike occurs on a specific numbered bar means you trust the flow because this is the specific language of the market.

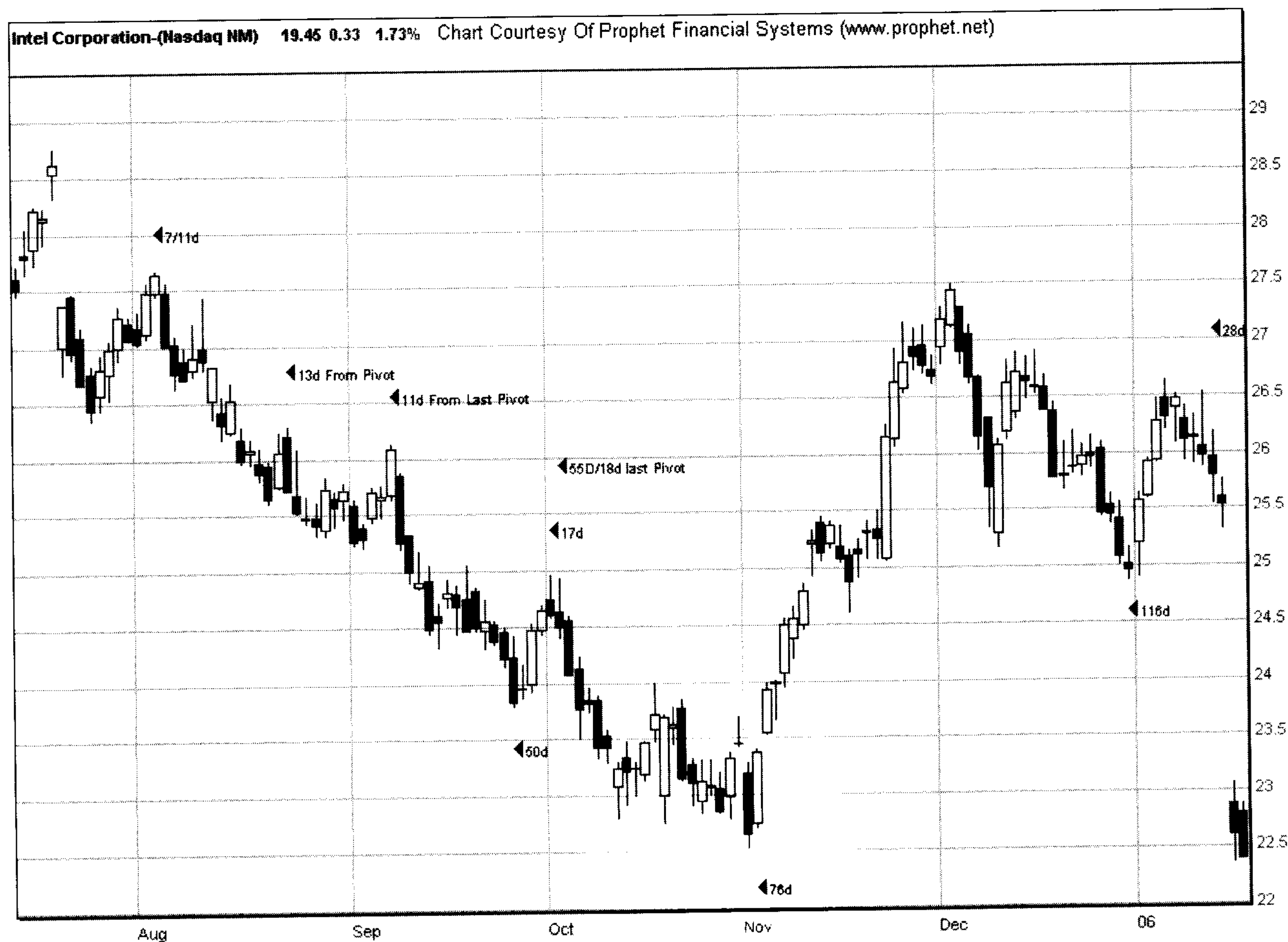
waves are not labeled because the point of this discussion is to show you the rotation of the bars and the finer detail of market precision. There is no subjectivity here at all. Just like the outcome of a sporting event, a spike on the 46th hour is exactly what it is: no more and no less.

Ask yourself the following question. Do you need to know the exact wave count when you really just need to understand the tendencies of what the bars can do? Understanding when a spike occurs on a specific numbered bar means you trust the flow because this is the specific language of the market.

### Fast Moving Bear

Figure 3.2 illustrates how you can get lost in a wave that really doesn't have a clear count but still be able to navigate your way through the maze. This is a daily chart of Intel, which is representative of the fast-moving bear

**Figure 3.2**  
Intel Daily Bearish Rotation





waves we've seen in recent years. As you can see, although these waves are not choppy, they would have been very difficult to count in real time. The problem is if you miss the top, it is very difficult to find a good entry point. How do you not get lost on the chart?

The answer lies in understanding how the waves rotate. In handling a leg like this, it is very important to manage the bar count because it works as your servant. Starting from the top, we can see the first spike completes on a Lucas cluster of 7 days up but 11 days on the high-to-high cycle. When you get that type of cluster, there is an extremely high probability of a continuation of the trend right there. However, because we should wait for confirmation, we get it in the form of a nice black candle on the next bar. By the way, don't attempt to trade any of this information at this point. Wait until you complete the last chapter, which ties it all together.

The progression down shows every single pivot spikes either on the exact number or within one of either a Fibonacci or Lucas bar.

Finally, the last drop pivots on the 54th day off the top and begins falling on the 55th day of the move. The move ends on the 75- to 76-day window. As you can see, by your diligent tracking of the bars, the market offered you three to four good shorting opportunities on the way down. If you don't know these tendencies, you stand a good chance of entering on the wrong bar and getting stopped out. Even though you've done everything right, this is still a difficult process, and you can still get stopped out. The difficulty is having one of these spikes go against you. Let's address that issue.

If you are a swing trader following the action on this daily chart, you want to scale down to an hourly chart and use the exact same formula. What you are likely to find is a similar progression or rotation of the bars on the hourly time frame. You can get a much more precise entry that way. Like all methodologies this is not perfect, but if you follow the bar count with the candle formations, you will find that you are getting stopped out less often, and that your trades will consistently have better risk reward ratios. This method will, over time, instill greater discipline. You will find yourself pulling the trigger more selectively and with greater confidence. Why? Because if the markets are spiking on a non-Fibonacci/non-Lucas bar, chances are the spike isn't over, and you don't need to act yet. Patience is a trait that can be developed over time, and you need to let the market come

to you. When that happens, your losses will be small. When you hit, likely you are catching the start of a move. You will find yourself consistently getting into trades where the risk/reward ratio is 3/1 or 4/1 in your favor.

In bigger moves in all degrees of trend, they will cycle from one pivot to the next on these rotational bars. Many moves will travel 13, 18, or 21 bars with the trend, and then pullback or spike to get a triangle-like formation of 18, 21, 26, or 29 bars and the trend resumes. Sometimes, we'll get a move of 7 bars in the direction of the trend and get a 4- to 6-bar pullback to give us a cycle of 11 (Lucas) or 13 (Fibonacci) bars. This goes on every single day on every single chart. Most people just don't realize it.

By far, the most important spike or pullback is the first one. The idea behind trading is not to be right all of the time, but to make sure that when you are right, you let the winners run so your gains will be larger than your losses. We want to catch third, or C, waves consistently. By far, the best opportunity in this sequence was the failure near the top when the 7/11 cluster bar failed. Of course, we don't know for sure that it is going to be a big move. Yet, common sense dictates that the very first failure and confirmation of a move off the top might lead to the best move of the sequence. We don't know what can develop, but had you taken a trade near that 7/11 bar, your stop out point would have been 1.00–1.50 away. A 1.618 extension of the first wave would have taken price action down near 24. At the very least, you had a 2/1 or 3/1 ratio in your favor. Of course, scaling this down to an hourly time frame would have enabled your risk reward to be even better.

## THE ENTIRE CYCLE FROM BULL TO BEAR ROTATION

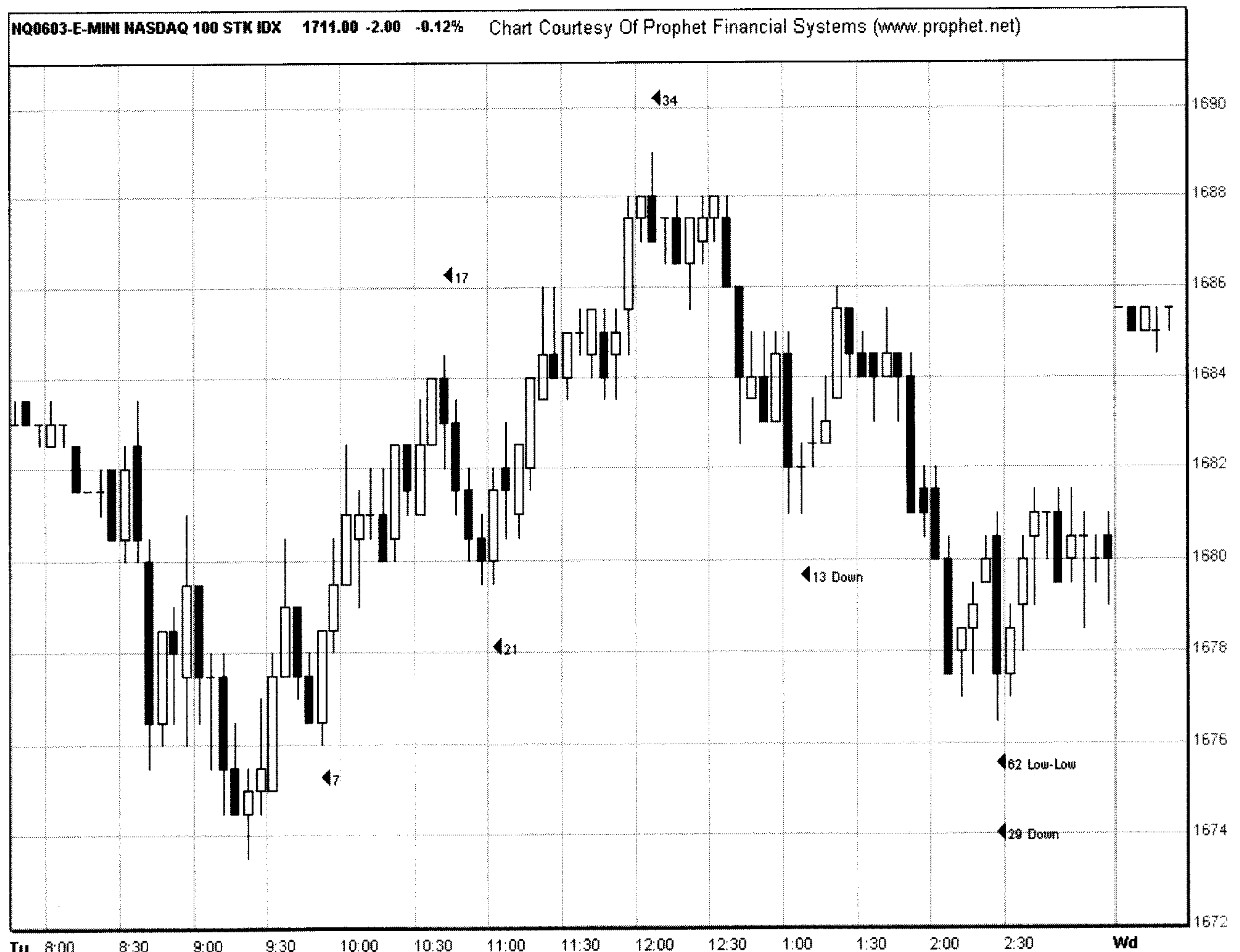
The next chart, Figure 3.3, is not as complex as the Intel chart but is no less important. This chart shows a complete low-to-low cycle. First there is a bullish rotation, the market turns, and then you have a bear rotation. Finally, we see how the entire cycle completes. We are looking at a 5-minute chart of the NQ from December 2005. This was a corrective period in the latter stages of a bull market. In the course of one trading day, we had a sharp rally, unexpected pullback, and rebound by the close. Why such volatility? The best explanation is that this action is representative of a mature market.

Whatever the case, this was a wild day, and the only way it really could be navigated properly was by understanding the rotation of the bars. As we covered in the last section, the best risk/reward ratios come after the first pullback and retest of a low. This is a perfect textbook case. In the last chapter, we discussed how basic Elliott theory won't alert you to a trend change. After the chart tops on the 34th bar, we don't really know the trend has changed until we see the bars starting to rotate on a high-to-high basis as opposed to the low-to-low in the first part of the sequence.

From the start, the 3rd wave up exploded with a nice white candle on the 7th bar and hit the high note on the 17th bar, one shy of a Lucas 18. Nothing is ever perfect, and in this case, your entry might have been around 1678 as it was closing near the top of the prior black candle. Your risk at that point was only 2 points as the secondary low was at 1676. This

**Figure 3.3**

5 minute NQ from Dec 2005





## Remember

Many lessons and observations on this chart you will see repeat continually in all financial markets, in all degrees of trend. In addition to the rotation, there is the triangular nature of cycles.

Charts are constantly finding tops and bottoms on Fibonacci- or Lucas-based roundtrips. Because we are dealing with snowflake-like patterns, no two are the same. But the tendencies are.

leg topped at 1684, which qualifies as a decent 3/1 risk/reward ratio but also 6 NQ points in less than an hour. At \$20 a point, that is not a bad wage for an hour's work. If you are using this methodology on the ND, which is the big futures contract at \$100 per point, you can see you've just made \$600 in an hour. However, the dollar amount is not as crucial as realizing this is a fundamentally sound approach to attacking these markets. On a wild day like this one, your compass is as steady as a rock.

Continuing with this example, we completed another small pullback on the 21st bar and completed the entire move on a Fibonacci 34-bar cycle.

On the bear side, we failed at resistance and started dropping on the seventh bar hitting a small degree low on Fibonacci 13. This would be your clue that we are not in the fifth or C wave but in a new progression down. The chart made a small degree, high-to-high cycle on bar 16 and completed the downtrend on a Lucas 29 bar. What is more important in this example is how the entire cycle completes in the 61–62 bar window.

Many lessons and observations on this chart you will see repeat continually in all financial markets, in all degrees of trend. In addition to the rotation, there is the triangular nature of cycles. Static cycle theorists believe stocks move according to exact time periods. We hear talk about the 4-year cycle, 50-month cycle, 39-month cycle. It's all nonsense. The truth is that what you've just seen on a 5-minute chart is representative of all time frames. Charts are constantly finding tops and bottoms on Fibonacci- or Lucas-based roundtrips. Because we are dealing with snowflake-like patterns, no two are the same. But the tendencies are. Yes, we started this chapter with a discussion of tendencies. Study this chart well, because you will see similar moves in the charts you follow for the rest of your life.

## Rotation And Elliott Wave Theory

The next lesson is strictly for Elliotticians. Figure 3.3 is somewhat choppy. On the way up, you can see that the pullback at bar 21 touches the price territory of wave 1 up. If this is a fourth wave,



it's not even supposed to graze the territory of wave 1, but it does. Since it does, you may become confused and think bar 17 was the top of the move; the logic being, we just completed a small-degree ABC up. Another issue is that we've been told fourth waves are not supposed to encroach on wave 1 highs at all. I'm here to tell you it doesn't matter. Does it really matter what the wave count is if you are trying to trade this chart in real time? The action moves too quickly for you to think.

On the way up, the only price relationship that does work is bars 1–4 (wave 1) as measured from the bottom of wave 2 (bar 7) nets us a 1.61 extension, which is very close to where we topped at bar 34. As we will see later on, many of these charts don't give us a perfect Fibonacci calculation, but I'm giving you a peek into the more advanced concepts, which we'll get to later. The only factor that is crystal clear is the bar count.

If you pay close attention to these waves, on the way down you can make out two very small-degree 5-wave sequences for an ABC sharp correction. Wait! If on the way up, the leg at bar 21 grazes the territory of wave 1, then by Elliott academic logic, the corresponding leg down should take out the low near 1674... but it does not! You could argue that we have corrective legs going both ways. Although, if you do your own due diligence, you will see that on December 20, 2005, we were in the midst of a correction on the daily scale that began on December 6 and ended on December 30. Corrective legs are confusing; they can go on for days on end. What are you going to do, not trade? The bar count just eliminates subjectivity and replaces it with high-probability tendencies.

Clearly, we can see that much of what we learned from the prior Elliott literature applies more to the academic than to the real world. I don't mean to upset anybody here, but one of the goals of this work is to eliminate as much subjectivity as possible.

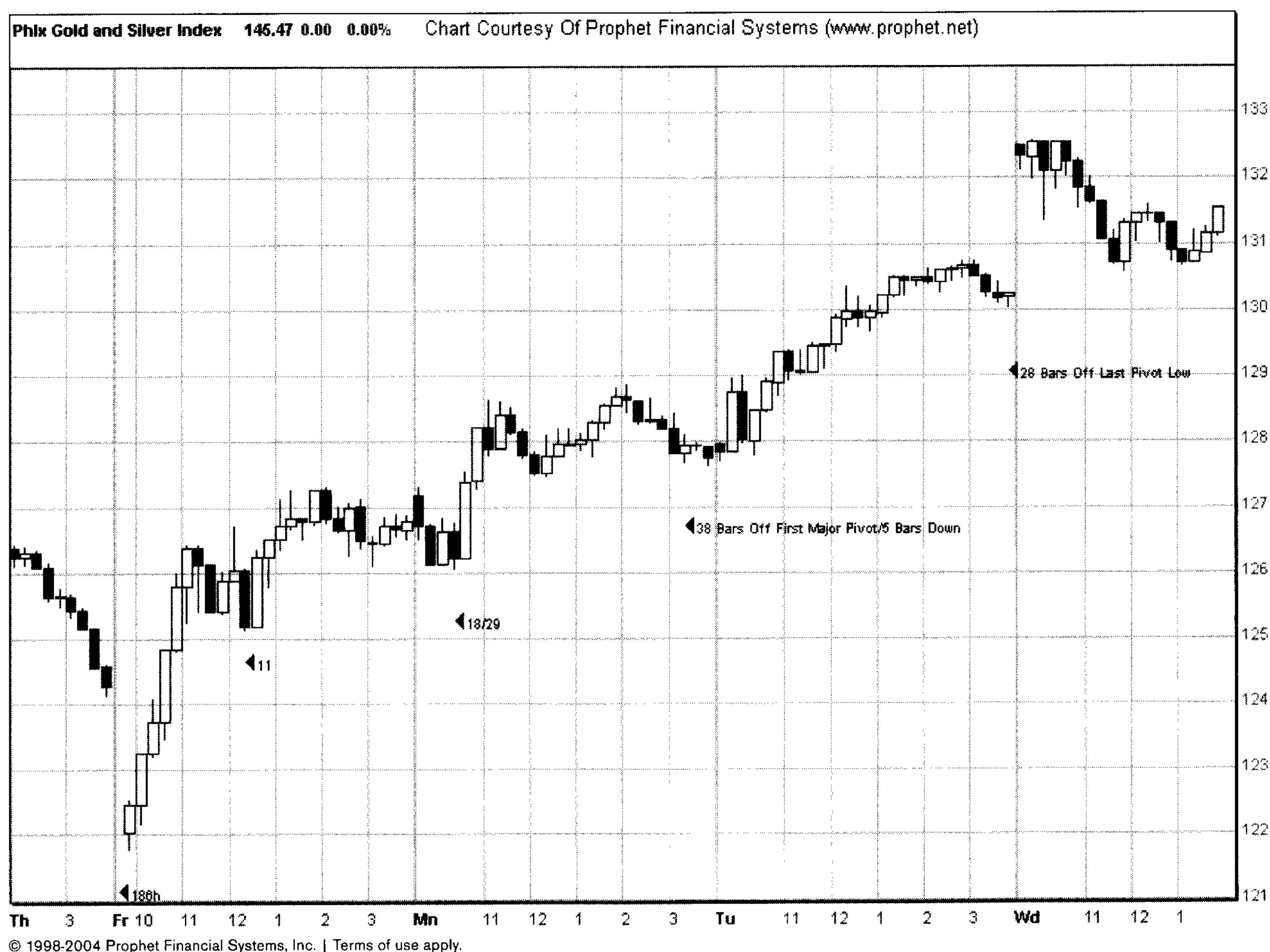
## ADVANCED SETUPS

Now that we've introduced the concept of rotation, and you've seen how a bull and bear cycle works, it's time to take this to the next level. The idea in trading is to increase the odds of a favorable trade. Obviously, some legs are better than others. The next chart is an illustration of a bullish rotation with clusters that line up at the same spot. Recall at the start, I stated that

the more relationships that cluster at a certain point, the greater the probability of a reversal. A variation of that would be that the more relationships that cluster on a spike or pullback, the greater the probability of the continuation of the trend.

Figure 3.4 is a 15-minute XAU chart. I know you aren't going to trade the XAU specifically, but this relates to any gold stock or any other chart for that matter. The first pullback creates a great buying opportunity on the 11th bar window. As you can see, the 11–12 bar window ends the pullback, and the white candle implies higher prices ahead. Pay very close attention to the next sequence. The chart creates a triangular looking semicircle. The next pullback ends on the 28–29th bar off the low. That in itself is good enough to create a buy signal. However, there are more relationships. That white candle near the 126 price low also marks the 11th bar of the small pullback. And there's more! The 29th bar (which is that black candle just

**Figure 3.4**  
15 minute XAU Rally Cluster



before the big white candle that really starts the move) is the 18th bar off the last pivot low. That 28–29 bar window is actually a cluster of three relationships lining up in the same place. If you are more conservative-minded, I recommend you take trades where there are two relationships lining up in the same place, but the third is an almost guaranteed winner!

I started this chapter with a comparison to weather forecasting. The better the storm is organized, the more damage it creates, right? In financial markets, the more relationships that line up at a cluster, the better organized is the cluster. I don't understand the reason or have an explanation as to why some waves are better organized than others, but I do know that it is so. When you see waves organized in this manner, you need to have the courage of your convictions and stick with the move. In this case, we are looking at the internal workings of the big wave up in gold stocks in 2005–2006.

Notice as the move progresses, the organization loses a little strength. We can compare this to the storm that finally hits the shore. The next small pivot is still organized as the last small bar, near price point 128, marks the 8th trading bar of the pullback. Two bars short of that is the 38th bar off the first pivot near the 11 bar. If you've missed an earlier entry, the goal is to track the bars from one major pivot low to the next. If a pullback ends on the right number of bars and clusters with a major pivot point from earlier in the trend, this is a positive development. If the very next bar breaks to the upside, that is a major clue of a continuation of the move.

### A Caveat: Gaps

I don't want you to get the idea this is a perfect system. The next sequence shows you how it can blow up in your face. It is true the final move gaps up because of another 28–29 bar move from a low, but be advised that gaps are double-edged swords.

When you see a gap, there is a very good chance it will be filled or tested in some way. I wouldn't initiate a position on a gap play later in a move even if it did cluster correctly because we never

### MAJOR GUIDELINE:

Buy pullbacks/sell spikes only if you believe they'll lead to third or C waves.

know how far the gap will test. It could fill the whole gap or just part of it. The later we are in the move, the worse the risk/reward ratio is.

My rule is to buy pullbacks/sell spikes only if you believe they'll lead to third or C waves. This keeps you out of questionable situations. As you will see later in the book, an important time bar always kicks off the major meat of the move. I believe it was Bernard Baruch who said he was willing to forego the first 10 percent and the last 10 percent of any move, just give him the middle 80 percent. The later we are in the trend, the worse chance it has of working out. Only the most aggressive of you should be initiating new positions later in the move. I'm not here to pass judgment on what you should be doing. However, there always comes a spot where the best part is right ahead. Usually this happens when the bar count is in the 30s or 40s. By the time we get beyond 89 on an intraday chart, and 61 on a daily chart, we are getting late in a trend.

By the time we get to the higher bar counts, divergences appear and you have to be prepared to take only what the market is willing to give you. As you can see from an intraday point of view, at the 78th–79th bar of the move is a gap up that leads to a consolidation.

In this sequence, there were two good opportunities for entry where the risk/reward ratio was very low. Both white candles on the 11, as well as the 28/29 bars, measured a little more than a point. The pivots would be considered your stop out point. In this case, you would have been buying the third wave up in the movement. The loss potential was roughly a point with at least a 3-point reward potential, if not more.

The major stigma against the Elliott methodology has been the leading practitioner's inability to call a top. As a result, practitioners have been blamed for missing one of the great moves in the history of the market, and there was untold damage to the reputation of the methodology. Many readers of my letter who consider themselves Fibonacci practitioners look down on the Wave Principle. This is a shame because the two go hand-in-hand. If you were new to financial markets (as many were) from 1995 to 2000 and you were searching for a method that could profitably guide you through the maze, how much confidence would you have in the Wave Principle if many practitioners were permanently bearish? Fortunately, this is changing. There are now other teachers who have learned to go with the flow of the market.



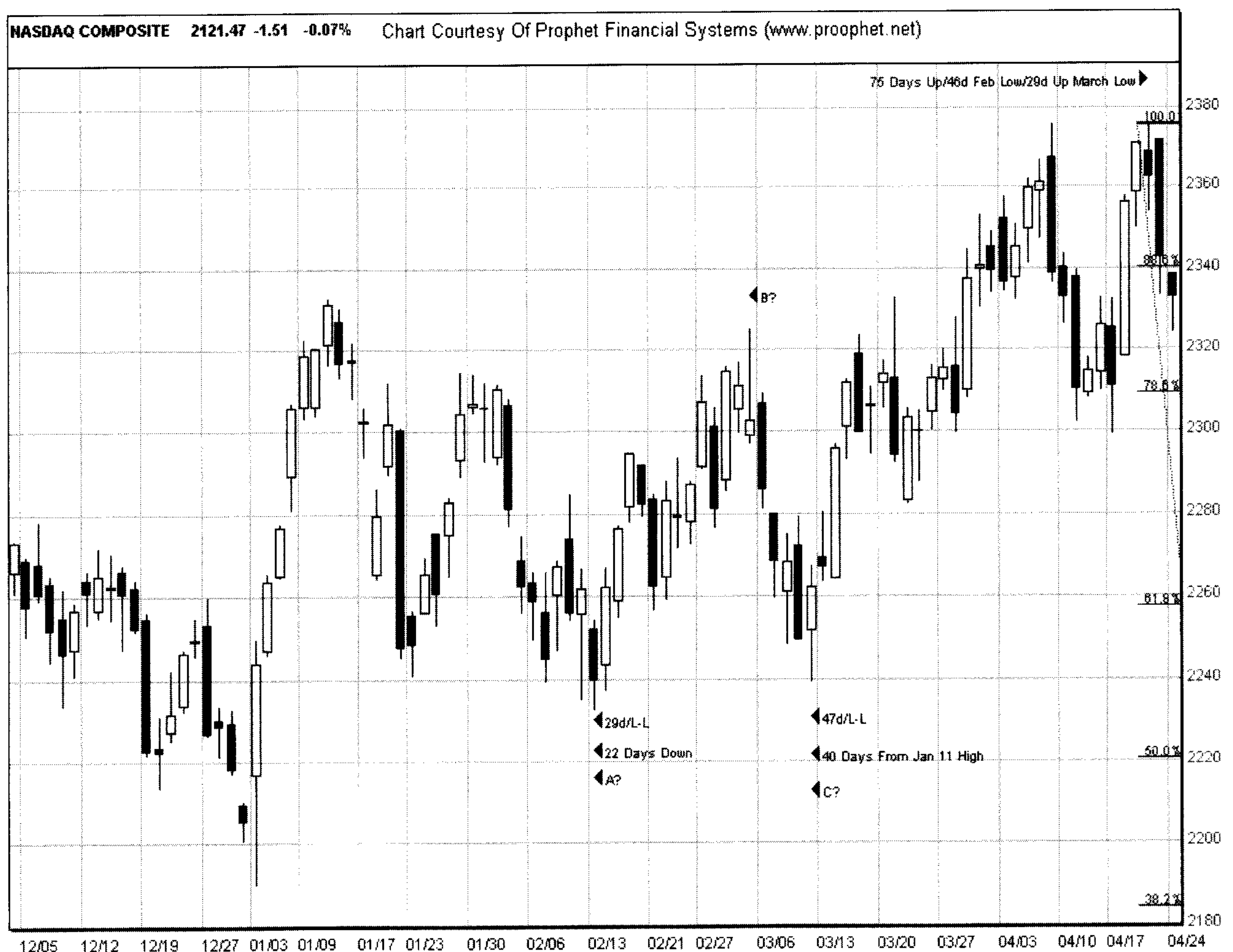
The emergence of this methodology came as a result of the failings of the Elliott community during these two periods. The Fibonacci Forecaster, which is my forecasting service, stayed on the bullish side for the better part of 2003–2006.

## Bullish Rotation Pivots

The next series of charts show how time clusters lined up in various degrees of trend to create what was most certainly an intermediate term top. It is important for you to be able to get through the Wall Street noise and recognize for yourself what a real top looks like.

Figure 3.5 highlights both principles we've discussed in this chapter. We have a bullish rotation on the upside and finally a cluster of relationships

**Figure 3.5**  
NASDAQ Daily Topping Cluster



### Rotation

In bull markets, the low-to-low cycle will dominate as the stronger cycle. In bear markets, it's just the other way around.

that created the high. This is a daily chart of the NASDAQ showing the 2006 portion of the rally leg from the 2002 low. From the low at the start of the year, we hit a peak on January 11 and pulled back. We created two pivots: one in February and a retest in March. Both of those pivots bottomed on Lucas relationships to the January low.

The February low was 29 days off the low, and the March pivot was 47 days off the low. My forecasting service correctly nailed both of those pivots as days where conditions were ripe for a continuation of the uptrend. From the 2240 low in March, we rallied all the way up to 2375 in a little over a month. Here's where it got interesting. During this period, all of the indices were exhibiting relationships on weekly charts that are not shown here. Sticking with this chart for the moment, by the time we got to April, we were 75 days off the January low, 46 days off the February low, and 29 days off the March low. The big drop began on the 47th day off the February pivot and 76 days off the January low. This top in the NASDAQ was created by a triple cluster of relationships that all terminated on three different Lucas relationships. In the chapter on momentum indicators, we will revisit this chart one more time since the MACD exhibited a bearish divergence for most of this leg. But the trend persisted.

Before we move on, let's look at the sideways correction that began on January 11. We had an ABC down that completed either on the February pivot or March pivot low. I've labeled what could be a flat correction as A?, B?, C?. What do the cycles say about this? The A? low completed on 22 days as opposed to 21 days; the C? low completed on the 40th day, which misses the 38–39 bar window. Keep in mind that in real time we don't have the luxury of knowing what will come next. We can't measure the B? leg up against some nebulous future leg up that we don't even know will happen.

What we do know is that this correction is not very well organized to the downside. This is a complex concept to grasp but, if you are this far into the book, I know you can get it. Our discussion of rotation has centered on high-to-high and low-to-low

cycles. In bull markets, the low-to-low cycle will dominate as the stronger cycle. In bear markets, it's just the other way around. I know we are splitting hairs, but if you start from the January low, you will see the February pivot is 29 days off a low pivot but also 22 days off a high pivot. Which relationship is stronger? Certainly the 29-day rotation is stronger than the 22-day rotation. The next pivot is the 47-day rotation, which is stronger than the 40-day cycle to the downside. This is just another way of determining the dominance of the trend. At this point, we can determine we are still in the uptrend. But is the pattern from the January high to the March low an ABC flat? Not likely, because the legs still are not equal. But more important, this period does not confirm on a Fibonacci number.

If this discussion confuses you, don't worry about it! You can study this chart repeatedly until you get it. Just watch the bars. The simplicity of this entire methodology is the bar counts. In this case, all you needed to know is that we hit a low on 29 days and another one on 47 days.

## Hitting The Cycle Top

To continue our discussion, Figure 3.6 is the weekly SPX chart from the August 2004 low up to the May 2006 high. The Fibonacci Forecaster actually identified the two highest probability days for the turn when scaling down to the daily and missed the price target by 2 points. This chart also illustrates the concepts discussed throughout this chapter. From the low, we hit a secondary retest of the low on the 11th bar. Notice how the next important low in April 2005 clusters on 7 bars down but to keep the integrity of the uptrend intact, we are 26 weeks from the 11th bar. The next important low is October 2005. This particular pivot is the 61st week of the trend, but also 26 weeks off the last major pivot.

As we started progressing into 2006, it became obvious that something out of the ordinary was happening. Suddenly, we could point to the early part of May as a point in time where we would be 29 weeks off the October low and 55 weeks off the April 2005 low at the same point in time. Considering the whole move, these two pivots barely miss the 89-week cycle off the August 2004 low. We made a new price high barely into the 91st week of the trend. Here we have a case where larger degree cycles

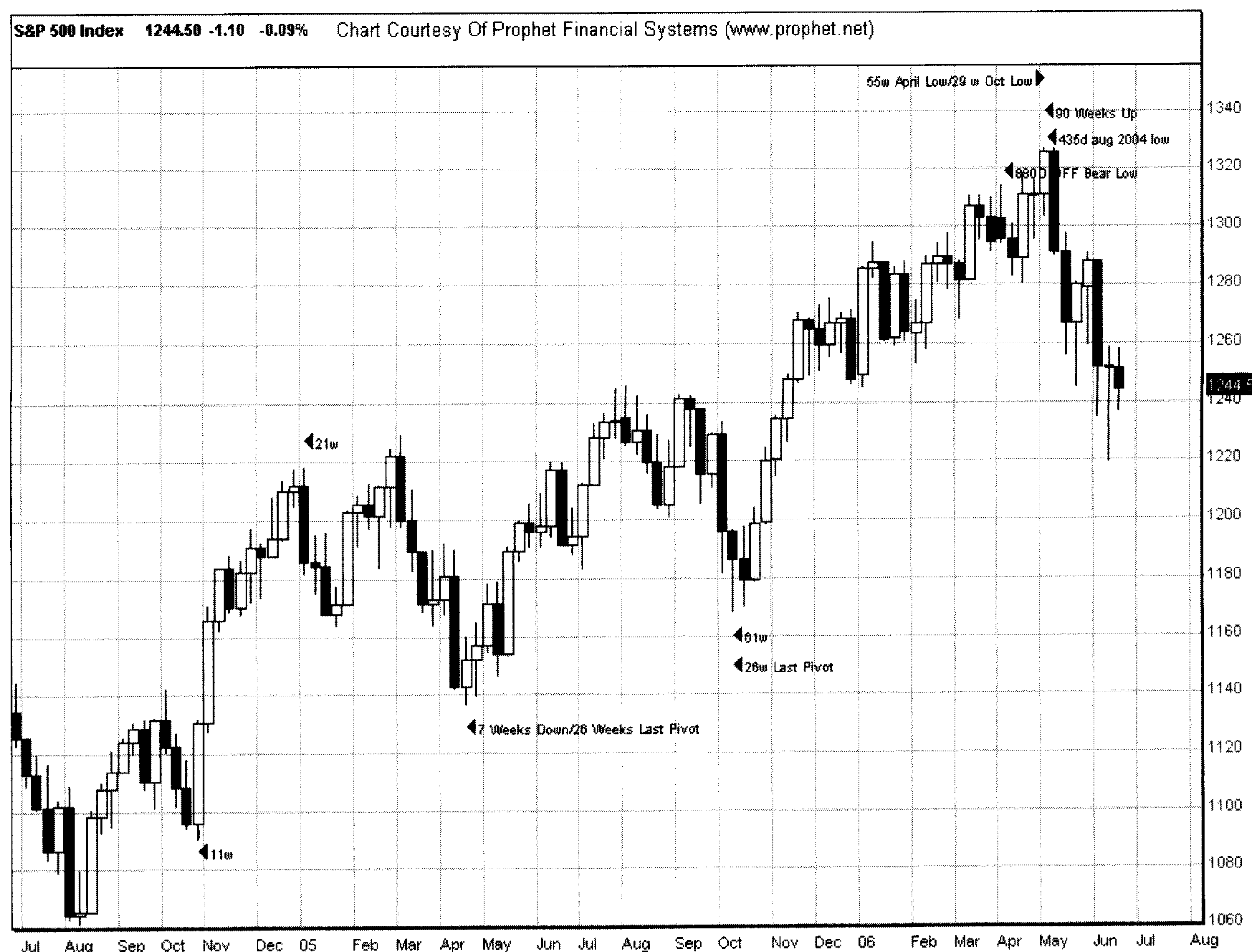


(weekly) are lining up just as they do on 5-minute, 15-minute, or hourly bars seen throughout this book.

There was a pivot low in June 2006 in the S&P 500 that created a 35 week low-to-low cycle with the October 2005 low. Was the uptrend still intact? We didn't know it at the time because the NASDAQ and Dow continued lower until the middle of July. As far as the S&P 500 was concerned, the June low made a good 35 week low-to-low cycle, yet it was only 6 weeks off a very well organized top. In terms of price, it had retraced a little over 38% against the August 2004 low yet didn't seem to retrace long enough in terms of time. However, these markets do not operate in a vacuum. The S&P 500 is influenced by the NASDAQ, which did top a month earlier on April 20th. That particular high was 424 (Derivative 4.23+1)

**Figure 3.6**

SPX Weekly from Aug 2004  
low to May 2006 high



days off the August 2004 pivot. In terms of the weekly frame the NASDAQ sequence for the cycle was 88 weeks up off the August 2004 low to April and then 13 weeks down. Do the calculations and you'll see  $13/88$  is .147 or extremely close to our minimum Fibonacci tendency of a .146 retracement. Looking in the rear view mirror the NASDAQ ended up retracing almost 61% of the leg up from August 2004 while the NDX retraced just a hair over the 61% price retracement.

If you really want to understand what a market is doing, study the 1-minute charts.

The whole point of the discussion is that a pivot high which is extremely well organized like May 2006 is going to cause one of two things to happen. First, it could create a long term top. Second, it could create a violent intermediate term trend change. In this case it chose the latter as we had one of the most violent reversals since the 2000-2002 bear market. Even though the rest of the market had an intermediate term correction the S&P 500 was short in terms of both price and time. As we know, the market is always right, so how do we deal with situations like this? Refer back to page 20. This is why we have Rule 3 in place. In short Rule 3 states that strong clusters will be broken only by a very powerful wave. So if you are following a chart where there is a pivot that materialized by a strong cluster of relationships, the retest will usually fail. If it doesn't fail, it is likely destined to continue a long way. There is no middle ground. In the case of the S&P 500, the May high was 1326 and the as this book went to press was over 1500. The May 2006 Dow high was 11670 and its equivalent number was 13300. Even the NASDAQ went 150 points higher. It has continued a long way.

## One Minute Charts

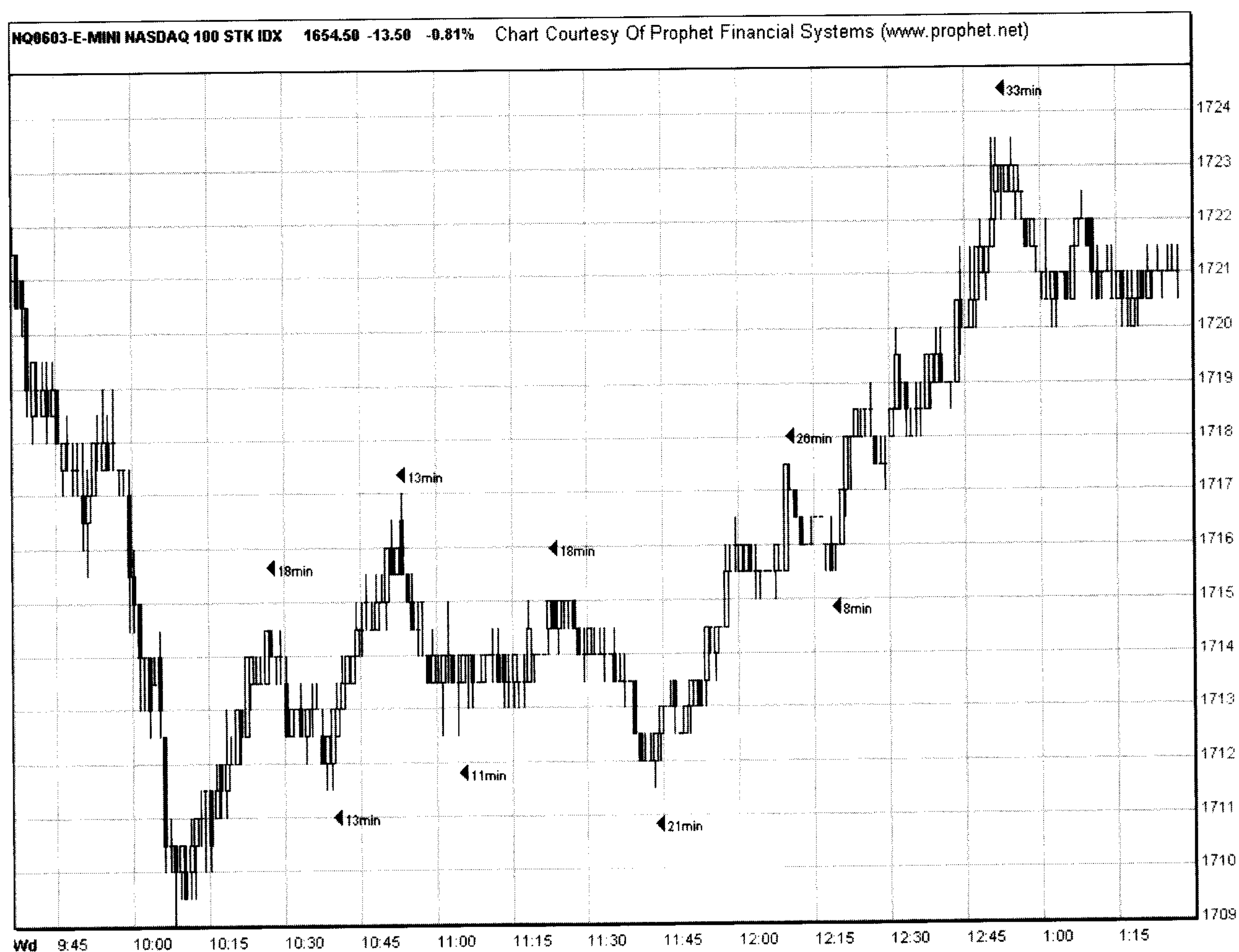
Our final lesson of a bullish rotation is to illustrate the ultimate x-ray of market precision. If you really want to understand what a market is doing, study the 1-minute charts. To many people, day trading has a very negative connotation. Unfortunately, all we heard during the NASDAQ bubble years is how day traders ended by quitting their jobs and ultimately losing everything. The sad truth is that 99 percent of them probably had no idea of wave rotation or how to figure out market precision.

In fact, a 1-minute chart on any futures contract moves very quickly. If you don't know what you are doing, it's a big mystery or worse. A 1-minute chart can be your undoing it's true; but with the proper training, it could also be the beginning of your breakthrough into really understanding market precision for the first time in your life. After we get through this chart, I think you'll be encouraged enough to examine and possibly trade 1-minute charts on your own. In non-trending markets, understanding this smallest time frame may turn out to be the only way you can make money until market conditions change.

Consider how many minutes there are in a trading day and you can begin to understand how many different patterns can happen in that time. The good news is that even on a 1-minute chart, the universal laws taught in this book are followed with incredible precision.

**Figure 3.7**

1 minute chart of the NQ



The first leg on Figure 3.7 tops in 18 minutes and pulls back for another 13 minutes. The next leg up is another 13 minutes so we have an ABC up of 18–13–13 minutes. There are 44 minutes that have elapsed; if we scaled up to a 5-minute chart, you'd see this A wave top in 8–5 minute bars. This is perfect market precision.

The pullback measures 11 minutes for A down, 18 minutes for B up, and finally 21 minutes for C down. There is any number of time relationships just in this little sequence. From the high at 1717 to the low at 1712.50 back up to 1715, we have a tiny 29-minute, high-to-high cycle that sets up the final drop of the move, which turns out to be 21 minutes. Three legs with perfect precision, but they don't end on a Fibonacci number—why not? This is a 50-minute correction that corresponds to another 10–5 minute bars, right? If we count the first 44 minutes (8 bars up), and the next 50 minutes (10 bars down), we end up on a 5-minute scale with another 18 bar, low-to-low cycle. This 18-bar cycle on the 5-minute time frame sets up the move of the day. On the way up, you can see a progression of 26 minutes followed by an 8-minute pullback. This creates a 34-minute, low-to-low cycle, which presented itself with the very last chance to get into this move. The top came another 33 minutes later. The entire third or C wave lasts 67 minutes or 13–5 minute bars. While the whole move up to this point is 31–5 minute bars, your precision in this case comes as a result of the first leg being 8–5 minute bars and the big leg 13 bars. To conclude, 8/13 has that .61/1.61 relationship to each other that we always look for in our price relationships.

What made Wayne Gretzky the greatest player in the history of hockey? He certainly wasn't the fastest skater or the biggest player on the ice. He has been asked that question a million times in his career. His answer was that most players chased the puck. Gretzky always anticipated where he thought the puck was going to go. That's how he always ended up in the right place. Hockey is a very fast game. His ability and anticipation of the highest probability place where he thought the puck would end up enabled him to slow the game down. It's the same principle here. A 1-minute chart moves very fast. That won't change. However, if you are able to anticipate the tendencies, the action starts to slow down, and you can actually anticipate what will happen next.



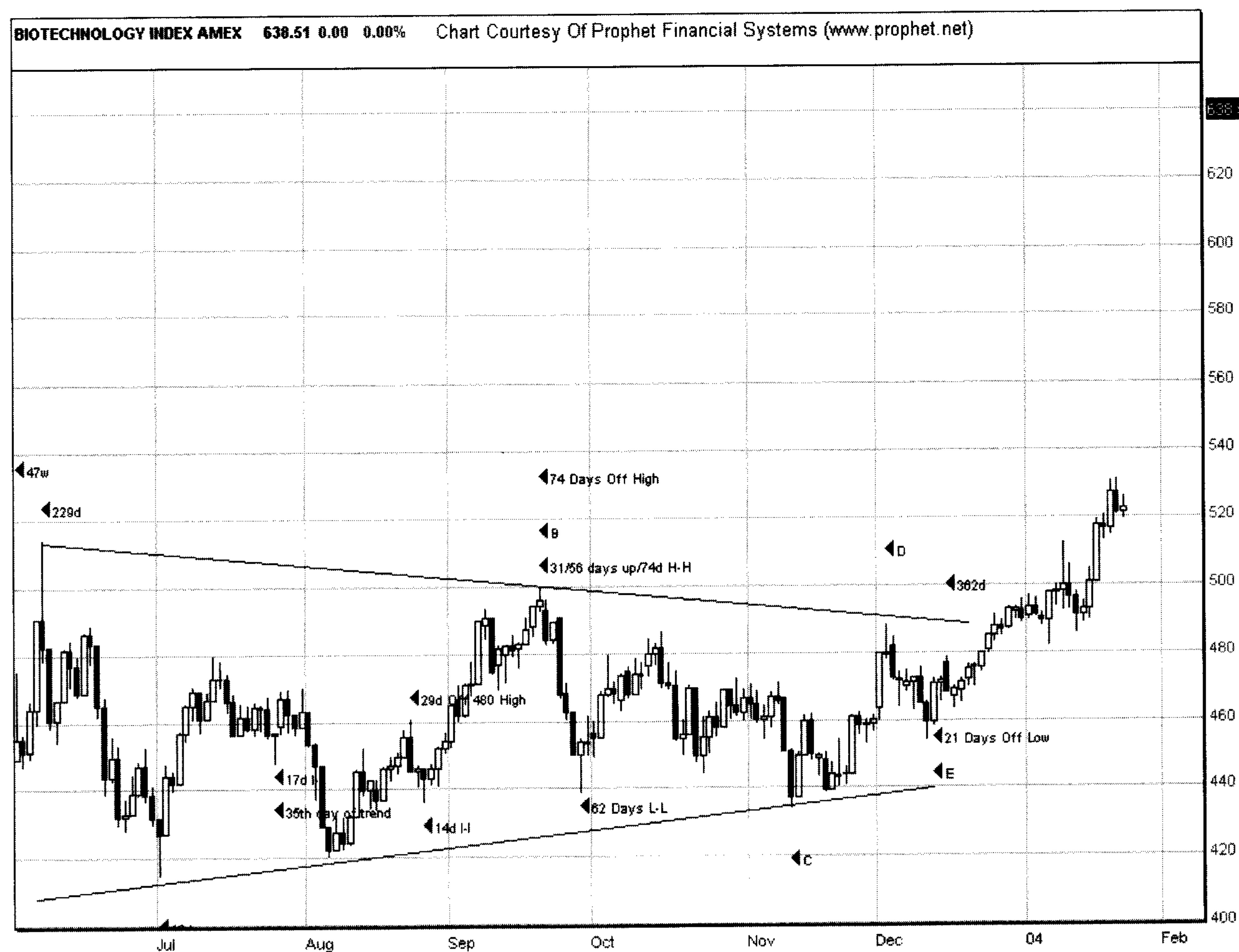
## SIDEWAYS MARKETS

Up to this point, we've covered what happens in bull and bear rotations. However, we know that markets don't have two possible directions, they have three. Markets spend a great deal of time going sideways. Let's assume you have a good methodology and know what you are doing. You use stops and are not part of the group that stubbornly hung on and lost 90 percent of the gains made in the 1990s Internet bubble. The biggest obstacle to your profitability is whipsaws. Getting chopped up in sideways markets is like water torture. It will bleed your account slowly over time. Although it is vitally important to recognize bull and bear moves, it may be even more important to recognize a sideways trend.

The time cycles offer great comfort to those of you who want to get out of the way of a whipsaw market. First, you stay out of the larger trend. Sec-

**Figure 3.8**

Biotech Index (BTK) Triangle



ond, if you scale down to a smaller time frame, it is probable that you can be profitable when many are sitting on the sidelines. A triangle or flat pattern on a daily time frame offers intraday traders many opportunities to take advantage of small degree range bound cycles. While your larger degree trading counterparts are getting stopped out or having to take heat while waiting for the breakout or breakdown, 5- and 15-minute time frames offer many chances to profit. The only difference between trading on the daily, hourly or smaller time units is that you get your results much quicker. In certain markets, intraday trading may be the only way to make money for days or weeks on end.

How do you recognize a sideways pattern as it is developing? It is the antithesis of everything discussed in this chapter. Nothing works properly. The low-to-low cycles of a bullish rotation don't pan out and neither do the high-to-high cycles of a bear phase. You might get stopped out one time in the sequence, but realize this: when the cycles don't work, it's high time to go to the sidelines because you are entering a whipsaw market. One of the best triangles I've seen during the past five years was on the Biotech Index (BTK). On the daily chart, this pattern extended over six months, and this type of environment happens all of the time on a smaller time scale.

As we work our way through Figure 3.8, things develop well enough. We complete a first leg down in 18 days and put in a good looking white candle morning star pattern. We even top on the 26th day of the move. However, things get very sticky once we get to the 17th day off the pivot low. On day 18, we put another good-looking white candle, and this one comes just days after the 26-day, high-to-high cycle. You can see the cross-currents starting to develop. The first sign of trouble is when this market has no follow through after the 17- to 18-day cycle to the upside. Three days later we turn down to retest the low after we just put in such a promising looking morning star pattern. Okay, we don't respond to the 18-day cycle, but then we don't take out the low either. Bears are upset because we didn't take out the low even though we failed at resistance on a 26-day, high-to-high cycle. At this point, we have our first clue that nothing is working.

### Trader Tip

The time cycles offer great comfort to those of you who want to get out of the way of a whipsaw market. First, you stay out of the larger trend. Second, if you scale down to a smaller time frame, it is probable that you can be profitable when many are sitting on the sidelines.

It's not working at least on the daily time frame. Understand that patterns such as this are a paradise for intraday traders.

As the pattern progresses, we get to the 29th day off the secondary high at 480. We get a nice black candle on a 29-day, high-to-high cycle. This one doesn't work either as that high is taken out within a week. We continue higher until we make a cluster high on the 74th day of the trend but 31 days off a secondary low and 56 days off a primary low. Compare this high to the ones I just discussed on the NASDAQ daily chart or SPX weekly chart. You can't compare it, can you? That's fine, because the theme of this chapter has been that some patterns are better organized than others. The only hint we may get a turn is the 56 days up. It is not a very well-defined cluster, but nevertheless we do head down. We find a low as a hammer pivot is put in on the 62nd day off the low. We do turn back up, but, if you've studied every other bullish rotation in this chapter you may have come to expect a large move to the upside based on the 62-day, low-to-low cycle. It doesn't happen, does it?

### Remember

We know that bull and bear phases in any degree of trend have unique characteristics that enable us to tell them apart. Sideways patterns give themselves away by not working.

We don't find a low until C expires on the 37th day of the leg, which is the 110th day of the pattern. The numbers 110 ( $11 \times 10$ ) and 111 are important Lucas 11 derivatives, but they are not in the table because they are a lower probability. From that point, we finally see that a bullish rotation starts to work. As you can see, it breaks out on the 21st day off that low.

In sum, we know that bull and bear phases in any degree of trend have unique characteristics that enable us to tell them apart. We also learned that sideways patterns give themselves away by not working.

By now, you should have a very good idea of how the time factor works in technical analysis. Although this is a good stand-alone methodology, it is not necessary to treat it as the proverbial deserted island of technical analysis. As complex as financial markets are, we can never have enough tools in the shed. While this methodology does lend itself mostly to Elliotticians and Fibonacci-style analysts, it need not be that way. This methodology can be combined with any methodology and many technical indicators.



We are going to spend the rest of our time together examining how we can continue to improve our odds on taking high-probability trades.

If you've noticed, all of the charts you see in this book use candlesticks. Candlesticks tell more about market behavior than basic line bars. Up to this point, all of the examples have hinted that the best way to identify important turns is to combine the time element with the candlestick methodology. The next chapter discusses this concept in greater detail.



## 4 | CANDLESTICKS AND THE TIME ELEMENT

In baseball, pitchers and catchers spend hours studying hitters to know what pitches they like and what they can't hit. They know what a certain hitter averages against lefties, righties, on the road, at home—you name it.

In poker, professionals spend hours studying the other players at the table to uncover their “tells,” which is their unconscious moves that might give away the kind of hand they have. These things are not easy, but they are the difference between winning and losing.

The common thread between sports and poker is that they are games of probability. Coaches break down film to discover what the opposition likes to do in certain situations, but they find the opposition won't do it in every case. Traders do the same—we examine charts to determine which moves the market will make during certain situations. It isn't easy, but we can use the information in the charts to increase our probability of being on the winning side of a trade. Like a coach with a scouting report, candlestick charting used with the time element is a powerful tool in uncovering what the competition is doing.

## **Japanese Candlesticks and Steve Nison**

Widely used in technical analysis, candlestick charting originated in Japan in the 18th century by Munehisa Homma (a.k.a. Sakata), known as the grandfather of candlesticks. He developed his method to analyze the price of rice contracts and was one of the first to recognize that market movement reflects mass psychology. Credited with three books on technical analysis, Sakata amassed a fortune in the rice market using his methods.

Steve Nison, with his first article on candlesticks appearing in *Futures* magazine in 1989, is credited with bringing candlestick charting techniques to the Western world. He is the author of *Strategies for Profiting with Japanese Candlestick Charts* and *Beyond Candlesticks: New Japanese Charting Techniques Revealed* and is regarded by most as the expert in this field.

When we discuss candlestick methodology, we are not just converting simple bars on a chart into the eastern system of pattern recognition the Japanese have perfected. The candles themselves have meaning, but their meaning can only be interpreted correctly in the overall context of market conditions.

I am not going to get into a full-blown course here on what candles are. I assume most of you have some level of understanding. If you don't, I must refer you to the Steve Nison materials, because he does a much better job of teaching this methodology than I ever will. What I do here is add to the great work that Mr. Nison has developed over the past 20 years.

Understand that when we talk about candlesticks, we are also talking about support and resistance levels. There are many different types of support and resistance levels. In the Elliott community, we think of the rules and guidelines of the waves. The most important rule is the overlap rule. The overlap of the fourth and first waves is a form of support or resistance. But there are many other types.

We can consider Fibonacci retracement levels as important lines. In addition, we can consider trend channel lines, prior highs or lows, moving averages, Bollinger Bands, and gaps as the most important areas on the chart. Which one is more important? Only the market can decide that. However, we can get a clue when we find a point on the chart where we get a cluster or confluence of relationships aligning in the same place.

We are looking for the highest probability setups. As we already know, some legs are better organized than others. Therefore, we are looking for recognizable candle patterns that line up near important support or resistance lines and also have the correct Fibonacci or Lucas relationships expiring at the same point. If this is all you do, you'll do very well. Remember though that waiting for these kinds of setups requires patience.

## SUPPORT AND RESISTANCE

The first chart, Figure 4.1, is a 5-minute NQ from December 2005. We made a high at approximately 1761.50 near the end of the session on Wednesday. We start a 17-bar drop to 1753, where we reverse. I'm not going to isolate all of the time relationships in these charts here because I want to concentrate on the candlestick confirmation. Notice that in the 10:30 hour price action retests the low with the white candle, and this line obviously becomes near term support.

From the low, we start a very choppy 5-wave correction. There is a lot of overlap in this pattern until we finally top on the 28th bar. We fail at the 1760 level, which also happens to be the secondary high in the first drop. Few teach how important Fibonacci or Lucas numbers are when search-

**Figure 4.1**

NQ 5 Minute Failure At Resistance



### Guide 4

A move is likely to commence on an important time bar, which is not the ultimate top or bottom. For instance, we may top on a 55-bar sequence, go sideways, and retest that high. What will happen is the retest may fall short by even one tick of the top but ultimately turn down on a 61 bar.

ing for support or resistance. In this case, the power of the number 60 in the price point acts as resistance. Whatever the case, we have a failure at the 28th bar up, and it is confirmed by the next candle, which is a black candle that more than fills the small gap up in the 1758 area. The 1760 area is now resistance, confirmed by a black candle. While it is confirmed, the prices aren't going lower... yet. Price action goes sideways until the 21st bar off the secondary high. This is an example of Guide 4. While we had a secondary high at bar 28, the real drop is another 21 bars down the road. From there, we get a real good 15-point drop. When support at 1753 fails, we really shouldn't expect support until this third or C wave measures  $1.618^*$  the first leg off the top.

To understand the concept of support and resistance lines, let's revisit the Citigroup chart from the Elliott Wave chapter but look at it from a different context (Figure 4.2). In terms of the waves, we've already identified them as a flat pattern. When we look at candles, we are attempting to identify lines on the chart that act as support and resistance. As stated above, there are various types of support and resistance. Some are very obvious: we identify others by digging into our toolbox of methodologies.

For whatever reason, the Citigroup chart elected to form a line of resistance near 49.70. It tests this area four times in seven trading days. Starting from the very first high, we have a textbook bearish engulfing bar as both real bodies line up in the same spot, yet the black candle body engulfs the white candle body. The A-portion of the flat completes on an 8-hour, high-to-high/5-hour up cycle cluster, just a hair shy of the big resistance line. The next black body down from A covers almost 3 hours of the move up. Small "a" completes on an 11-hour, low-to-low cycle.

Look at the small real body black candle with the upper tail just to the right of the bar identified as a/11 hours (not identified). These two candles are identified as a harami reversal. A harami basically is a large body followed by a small body. After progress in a trend, prices stall out as the small body implies uncertainty. The harami is usually a lower probability reversal pattern and not as powerful as an evening/morning star. However, the more the





the prior pivot; and finally the relationship to the original high. Remember the first rule about clustering. Let's just say that if we had three time relationships lining up right there, that likely would have been where the pattern failed. When it didn't, the door was opened for one more retest.

The chart makes another complete cycle. The B-wave low turns on yet another harami, which completes in 20 hours off the A-wave high. As you can see, that harami turns on a real small white candle compared to the large black one that preceded it. It may have turned price action up, but it only lasted a couple of days.

The final high to this sequence proves the cluster rule to be true. I've identified two time relationships right on the chart. First, this final C leg tops in 13 hours. The next bar, which begins the real move, starts in the 38th hour off the first low. On closer inspection, we see the C-wave high completes in a 17-hour, high-to-high (Lucas 18-1) cycle with the prior high. There are three good time relationships at this point as opposed to the prior high having only one. The drop in the 38th bar is a large black engulfing reversal bar. This is important because it combines many technical elements for a high-probability setup. First, we have a failure at an important resistance line. Second, the candles are showing decent reversal bars, and when you combine those two elements with our time methodology, you have a low-risk/high-reward setup.

Follow the progression as price action moves away from the top. Count the bars yourself: what do you see? You see a small pivot on the 8th bar off the high and another one on the 18th bar. Your last chance to get into this trade is on the 18th bar of that small-degree, high-to-high cycle at the 49.40 area.

### **Failure at Resistance**

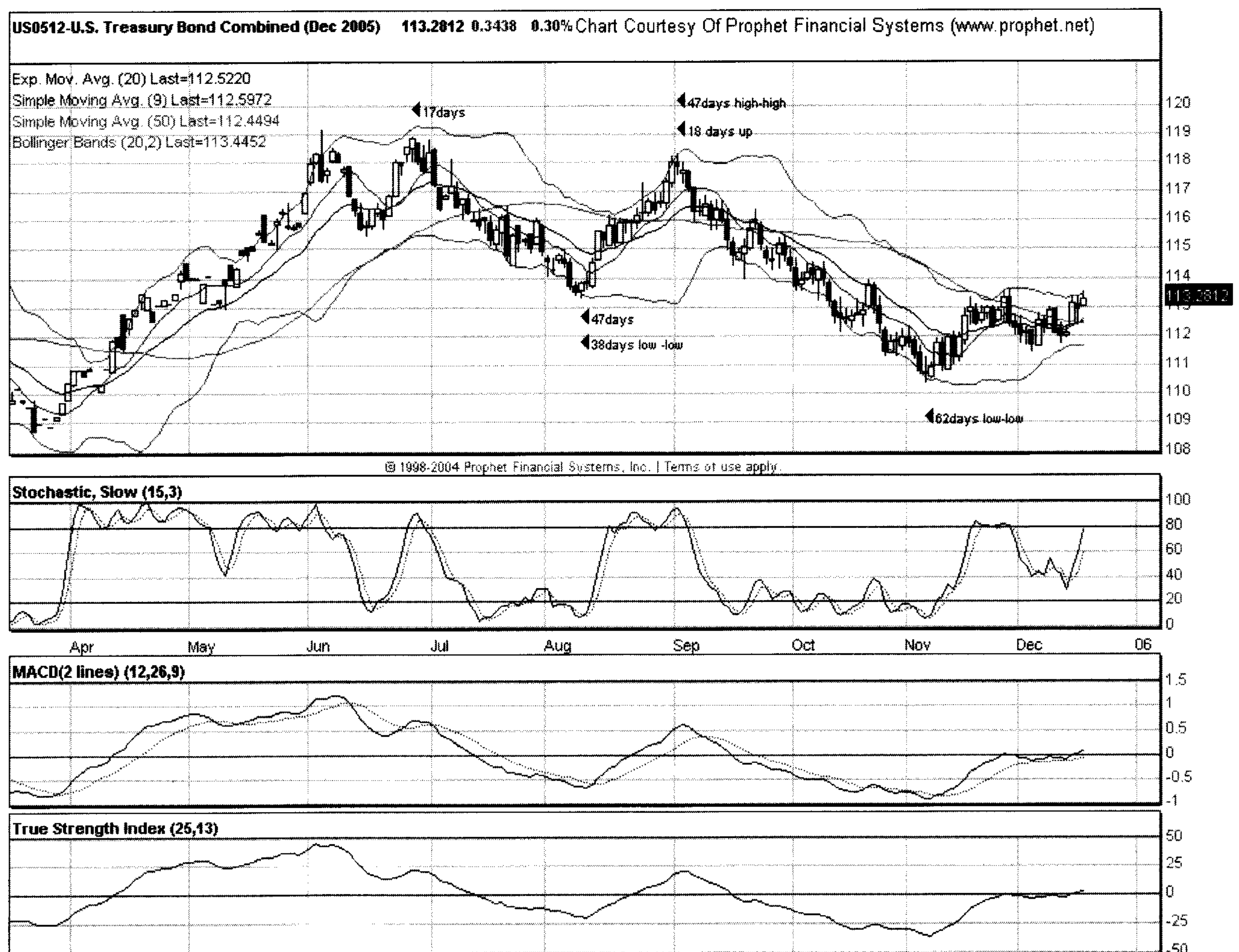
Another fine example of how a chart fails at an important resistance line is on Figure 4.3, the daily December Bond Futures contract. Not all failures at resistance come exactly at the top as seen on the Citigroup chart. Often, we will get a B, or second, wave retest of the high that fails at the 78 percent retracement level. From the top, we put in a 17-day, high-to-high cycle that confirms a failure at resistance. The 18th bar off the top is the black candle that signals we are pulling away from the top. As stated so often in this book, the move that kicks in after support is retested or a

failure at resistance is the most important. In Elliott parlance, this is the end of your second or B wave. The rest of the technical community just considers it a confirmation of a support or resistance line. Whatever the case, the setup is ripe for the biggest move of the pattern.

In this case, we keep moving down until we get to the 47th day of the cycle that also clusters with a 38-day, low-to-low with the first pivot low. If you go back to May on the chart, you will see an area of support near 113, which holds for the time being. This area of support is confirmed two days later with a big white candle.

You could decide to go long based on the 38/47 cluster, also confirmed with the white candle. What happens next is an 18-day uptrend that creates a 47-day, high-to-high cycle. This time cluster fails and the candles

**Figure 4.3**  
December Bond Futures





confirm it two days later. We've discussed all of the traditional support and resistance lines. However, there is another one of which most people are unaware. When we get these clusters, such as an 18-day leg coinciding with a 47-day cycle, these can act as time resistance. The more relationships we have that create a reversal, the greater the chance we have of creating time resistance. We saw this in the prior chapter at the May high in the NASDAQ and S&P 500. Most analysts don't understand how these time clusters suddenly create invisible ceilings of resistance. The fact is, the better these time elements are organized, the more confident you can be that they will not be taken out for a long time. As an aside, the Dow and NDX rallies of 2002–2004 had a squaring of time where the first leg was approximately 233 hours and the big 2003 rally leg was 233 (give or take) days. The high created by this squaring of time held for 10 months.

Our example ends as the final leg down completes in a 62-day, low-to-low cycle with the prior pivot low. By examining these waves, you will see how it is the time element that once again provides you with the best compass because these waves do not correspond to any common Fibonacci inter-wave measurement.

## Nailing Reversals

Figure 4.4 exhibits a complete correction in the XAU from November 2004 until May 2005, with Lucas footprints throughout the pattern. Since I've brought Lucas to the mainstream, I've found that even though there are a few in the Fibonacci/Elliott community who've heard of the Lucas sequence, they have no idea of the profound influence it has on financial markets.

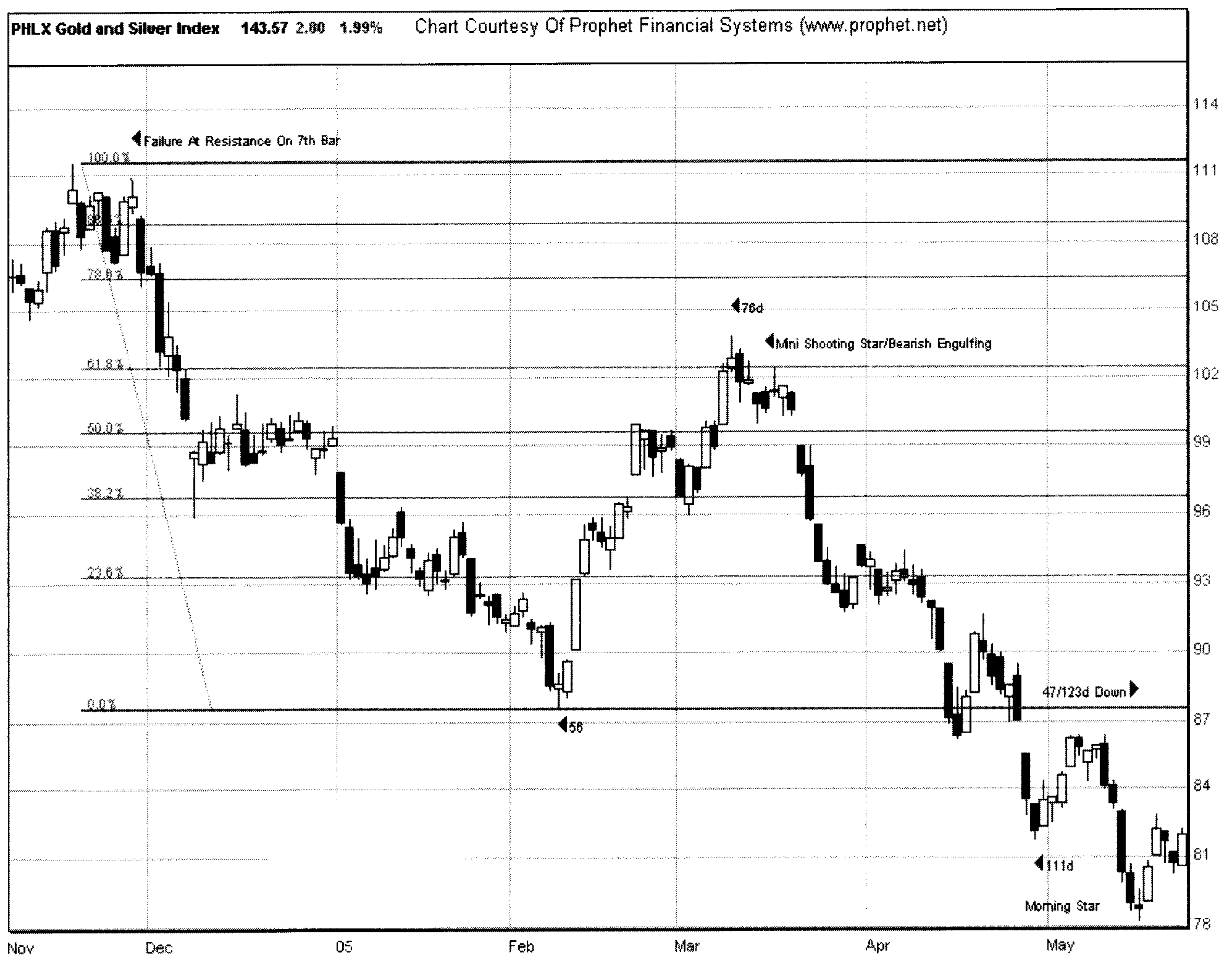
This particular chart is a complete picture of an intermediate, garden-variety correction that we see in all financial markets. Yes, it's a textbook ABC sharp correction. Check out the B wave. It completes on a 76-day, high-to-high cycle. Finally, the C leg completes on a 47-day leg for a complete 123-day pattern.

However, this chapter is about candle lines. Just like the last chart on the bond market, you can recognize a failure at resistance by the Lucas bar count on figure 4.4. Going back to the beginning of the move, we have an initial failure at resistance on the seventh day of the move. If you isolate

bars 6 through 8; bar 6 is a white candle, 7 is a small tail, and 8 is a big black candle. The gap down on bar 8 totally engulfs and invalidates the white candle going up. If it wasn't the top itself, it would be an excellent evening star reversal pattern on its own merit.

The A wave completes on a Fibonacci 56 bars down. When the B wave starts, the first thing we want to do is draw the Fibonacci retracement lines to gauge how far the retest of the high may go. I always consider the 61 percent price retracement the highest probability retest spot. The 78 percent level already is considered the lower probability. In this case, we have a band of resistance at the 50 percent level created by the sideways move that took up much of December. Price action took it out but couldn't hold it. If we consider the 61 percent level as the resistance line,

**Figure 4.4**  
XAU Daily Lucas Correction



**Trader Tip**

Time clusters create invisible ceilings that are nearly impossible to take out. A good time cluster will hold for weeks and even months.

we start counting the bars in advance and anticipate a possible turn at that level. It doesn't always happen, but here we have a complete B wave, which is 21 bars low-to-high but 76 days high-to-high. We take out the 61 percent level slightly, but as you can see, the chart puts in a mini-shooting-star upper tail followed by bearish engulfing bar.

Normally, we don't react to this sort of signal. If you are following just the candles, it's really not the greatest looking reversal bar. It's okay, but not enough to pull the trigger. Throw in the retracement levels, and we begin to understand why a reversal might work. However, when you take everything into consideration, you begin to build a good case for the reversal. In this example, we have a time cluster of 21/76 days, the 61 percent retracement level, and the mildly bearish candles.

Nison, in his books, advises us not to take a trade based on the candle line exclusively. This is true, and this is a textbook case for it. Now that you are aware of the time factor, you will begin to anticipate when a chart can turnover.

Finally, this correction ends on the 123/47 bar cluster in May. What follows is a nice-looking morning-star pattern.

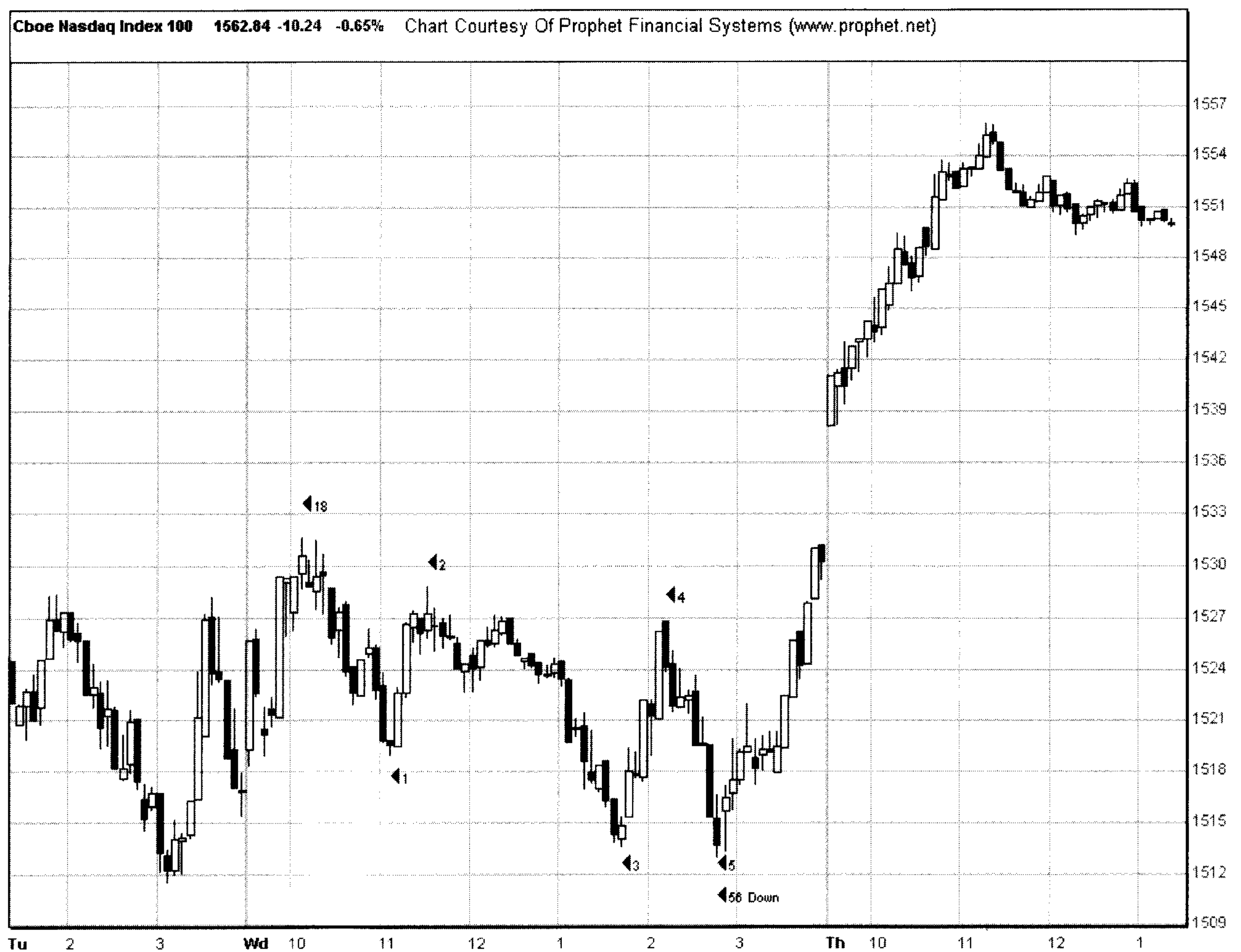
What these two charts illustrate is a new concept to many of you. As you know, there are many types of support and resistance. I'd like to introduce the concept of time resistance. On both charts, the failure at resistance comes close but does not hit exactly a common Fibonacci price level. This is confusing to the average Elliottician and Fibonacci analyst alike. In each case, the B wave up, or reactionary retest leg, fails on a Lucas high-to-high cycle. The bond chart fails on a 47-day, high-to-high cycle, and the XAU fails on a 76-day, high-to-high cycle. I've highlighted the Fibonacci price retracement levels in the XAU case. Many times, a B wave will fail right on the level, but many times it won't. Here's why. It fails because time ran out. It's as simple as that. For whatever reason (likely an emotional reaction), price action temporarily exceeded the 61 percent price area. On the other hand, it didn't exceed it by much, but enough to confuse traders



who are looking specifically at the various retracement levels. Whatever the case, we see charts that will go just beyond or fail just before the 61 percent level.

The point is the cluster of the two relationships. First the 21-day cycle up, and ultimately, the 76-day high-to-high round trip acts on the price action the same way as a moving average or a Fibonacci retracement level would. Actually, it's better. These time clusters create invisible ceilings that are nearly impossible to take out. A good time cluster will hold for weeks and even months. In this case, this form of resistance at the 103 area holds for 6 months. This correction ends in May, and it's not until the next leg up really gets going that this level is finally taken out. In the case of the bond chart, the B-wave high that formed in September 2005, may hold for years.

**Figure 4.5**  
Same as 2.9 NDX Overlap



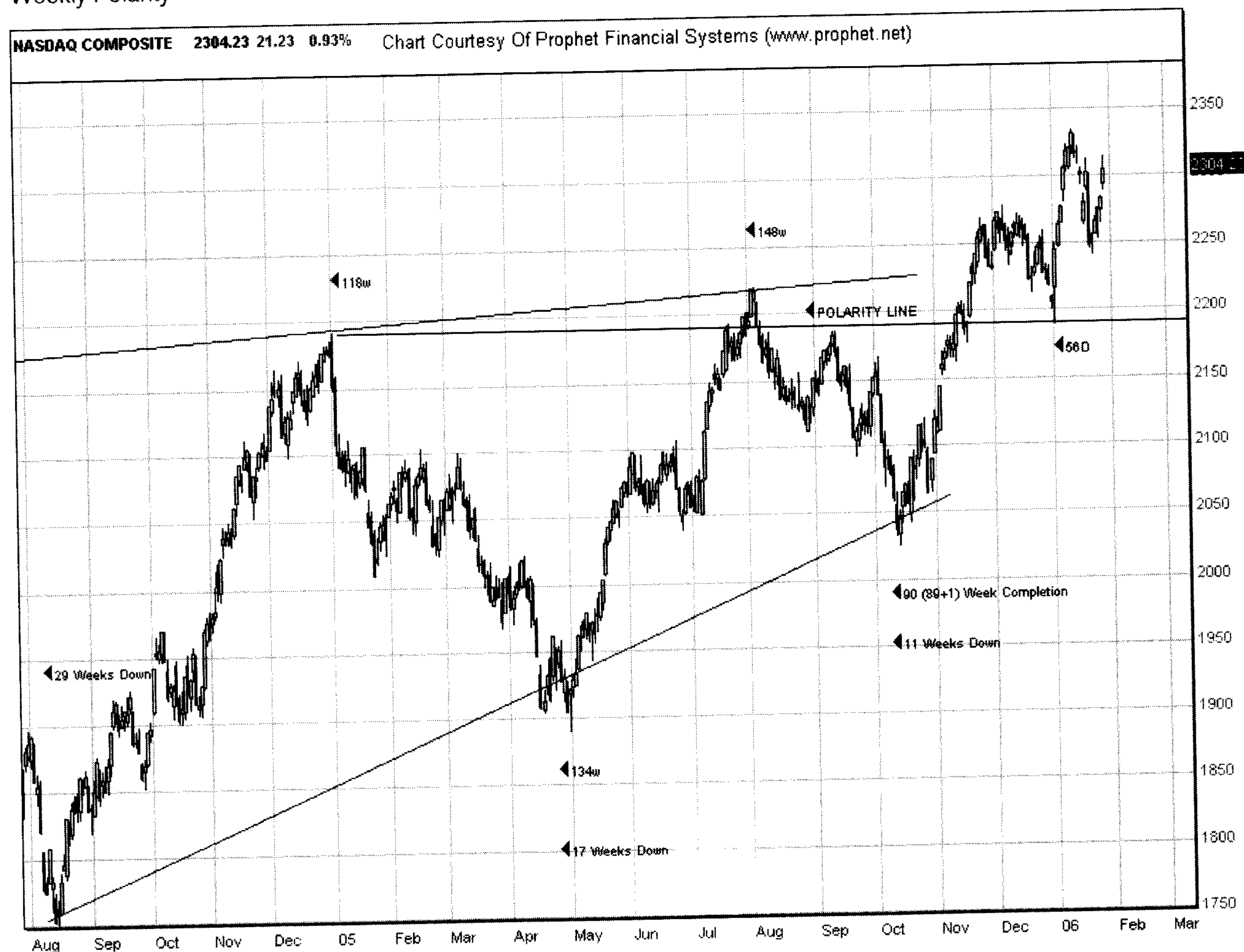
## Confirming Support

We've already seen this chart earlier as an exhibit of how a correction overlaps. Figure 4.5 is also an excellent example of how a support area is confirmed. This example is the polar opposite of the Citigroup chart. Our low is put in near the close on Tuesday at the 1512 area. The action turns up in an 18-bar leg before we get that second, or B wave, correction. Look what happens in wave 5. We have an 8-bar leg down that clusters with a 56 (Fibonacci 55+1) bar move to the downside. The fifth wave confirms the low or support line at 1512 a day earlier. The only problem I have with this chart is the candles off the low. In this period, they don't look very good. However, this is a 5-minute chart. If you scale up to the 15-minute time frame, you will see a much better-looking candle off the low.

**Figure 4.6**

NASDAQ Aug 2004/Early 2006

Weekly Polarity



Look what happens on the leg up. It gaps up at the point of former resistance. This is a very important concept. Nison calls this the polarity principle (Nison 1991, 201–208). The polarity principle simply means that what was formerly resistance can turn into support or former support can turn into resistance. Why does this work? In this case, it seems that the 1530 area is a point where many traders sold the bounce looking for prices to go lower. They actually had three chances to go short that day. Unfortunately for them, they shorted a corrective choppy wave—a big mistake.

In this example, we don't know if support is going to break, and actually there is a better chance it will hold based on the pattern. Many will be greedy and go short prematurely as we get to the support line. The best way to take a short in this case would be to wait for a candle to break through and close below support.

## POLARITY LINES AND ZONES

Have you ever bought into a position, had it go against you, and thought that, if only this thing ever got back to break even would you sell? Well, if many other people did the same thing, that could act as a polarity line.

Figure 4.6 is a weekly chart of the action in the NASDAQ from August 2004, into the early part of the 2006. The January 2005 high at 2191 held for 8 months. Although it was taken out in August, it did not hold. It was finally taken out on the next attempt in November 2005. This chart is here because of the retest. As you can see, the line near 2200 acted as resistance for a whole year. It finally broke through to stay on the fourth try. But this line was retested in January 2006. The pullback found support at the old January 2005 high. Almost as important is the rotation of the bars off the October low. Action turns up on a cluster of 56 days off the October pivot but also 18 bars down off that early December high. As a very important support line was secured, price immediately exploded to the upside.

The other important support line is the October low itself. Check out the congestion band of action back in February and June 2005. Although prices broke down one time leading into the April 2005 low, obviously they didn't stay there. The October low ended an 11-week downtrend in the near term but also an 89-week triangle since the January 2004 high.

A close-up of the same chart on a weekly basis shows some of the candle formations at the various turns (Figure 4.7). The August 2004 low completes a 29-week leg (top now shown) and in candle terms, a morning-star pattern with black candle down, bottoming candle with small real body, and large white candle creating the reversal. The next leg up to the end of the year is a 21-week leg that reverses on a huge bearish engulfing bar. The first weekly bar of 2005 retraces the prior five weekly bars to the upside. The next two reversal formations don't exhibit classic candle reversals, but they do put in tails in the right direction with bars that follow through.

The significance of the August 2005 high is the upper tail that confirms resistance of the January high. As you can see, this high doesn't line up

**Figure 4.7**

Close-up of NASDAQ weekly

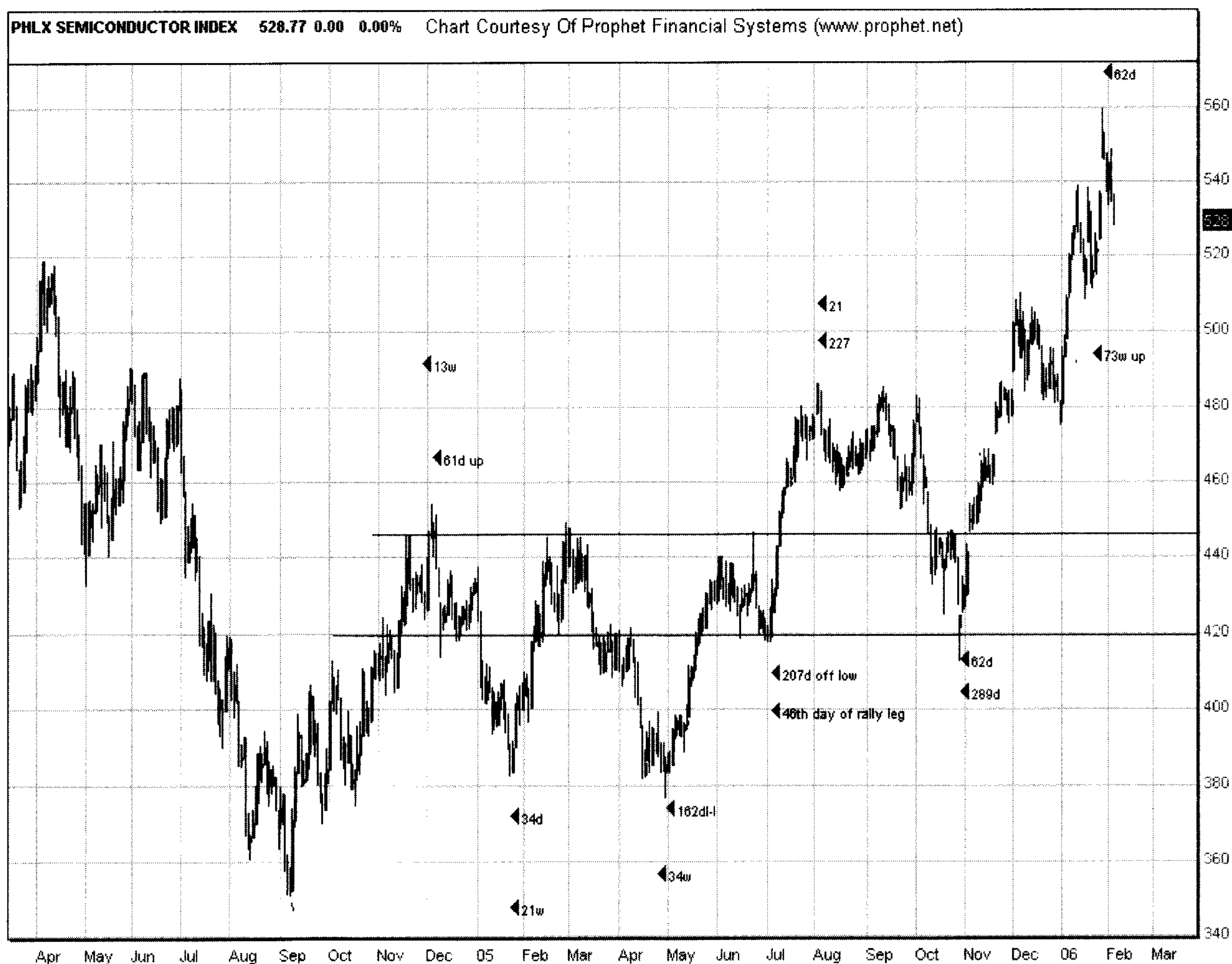




with a real good time cluster. That could be a good reason why this high is eventually taken out.

The next example, Figure 4.8, illustrates the polarity line as a zone as opposed to a line. The SOX spent 5 months testing the zone from 420 up to 445. It briefly broke below in January and April. Finally, along with the rest of the market, the SOX tested this band one more time before finding support. A small hammer on the daily bar reversed on the 62nd day of the correction and turned up for a 140+ point move up to 560. Although we can see the reversal on the 62nd bar of the pullback, the April low is the 162nd day of the trend, and the October low is the 289th day of the trend. The difference is 127 days (1.27 is the square root of 1.618). All time bars are fair game for reversals. What we have, in addition to all of the other

**Figure 4.8**  
SOX Daily Polarity Zone





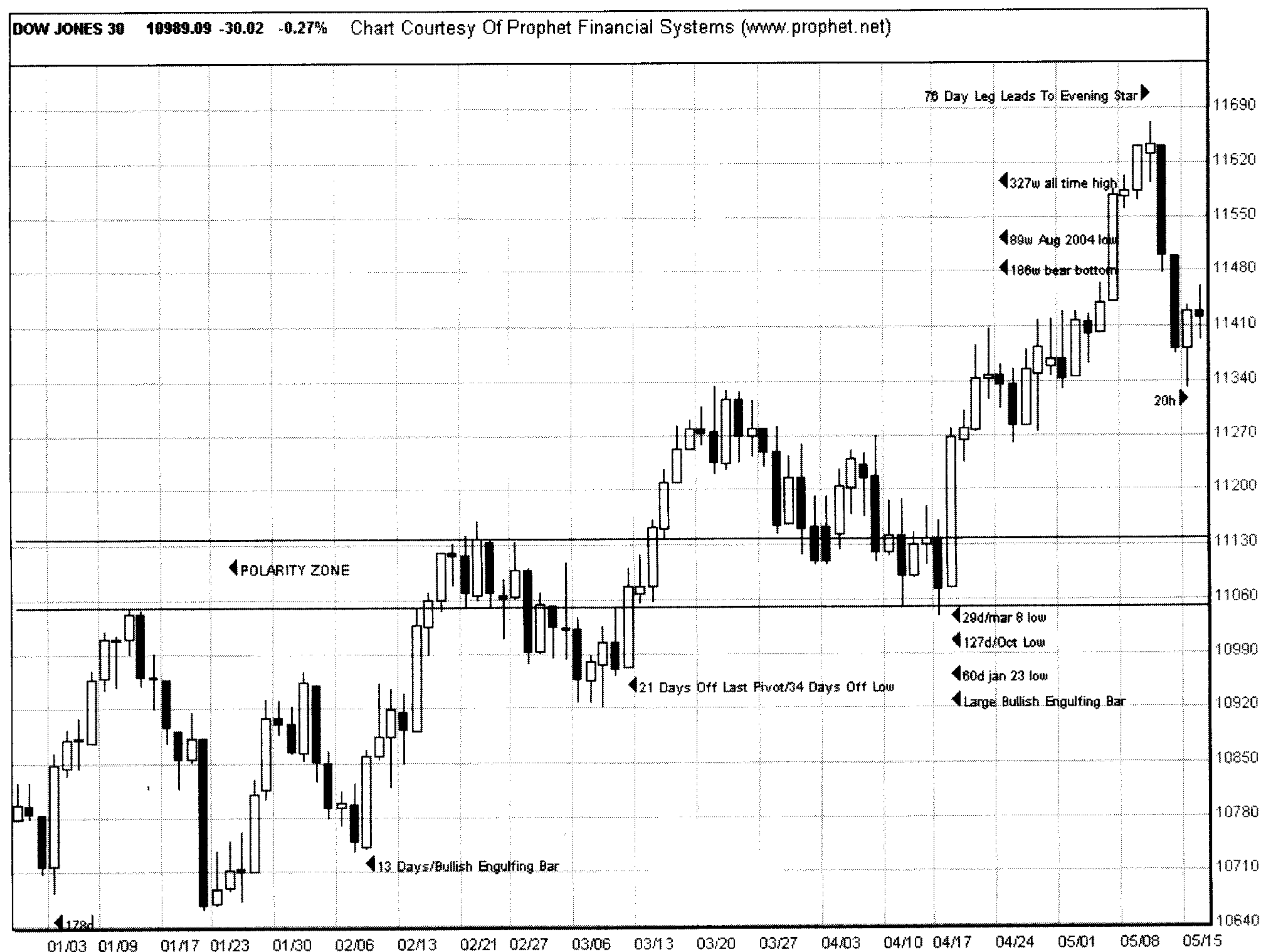
relationships that lined up in October 2005, is a cluster of 127 days low-to-low and 62 days high-to-low. This is another example of how the time element creates important support. The SOX topped in January 2006 and hit an important low near 430. As of this writing, the October 2005 time cluster is still holding.

## PUTTING IT ALL TOGETHER: TIME RESISTANCE

The next chart comes very close to nailing all of the principles we've discussed up to this point. I've already shown you calculations that created the April–May turn in the SPX and NASDAQ. We haven't covered the Dow yet.

**Figure 4.9**

Dow Daily Polarity



Look at Figure 4.9. Starting with the January low, we have a bullish rotation that creates a better-than-textbook bullish engulfing white candle on the 13th bar of the move. These are the exact conditions you would be looking for in any period on any chart. The problem is the market doesn't always give this to you. In the charts up to this point, we get some elements in place, but rarely all of them together in such an obvious fashion. Here, I want you to see what perfect conditions look like, so the next time you see it, you'll recognize it for what it is and take advantage of it.

If you are looking for less than perfect, but with many of the elements in place, all you have to do is look at the next pivot. As you can see, the next real nice-looking white candle comes on the 21st day after the prior pivot and clusters as the 34th day off the low. The problem is that it does not represent the low, which came a couple of days before at 10,920. Why did it happen this way? I can't say for sure, but this is the hand the market dealt. If you scaled this wave down on an intraday basis, you'll likely see that white candle on the 21/34 bar is the start of a smaller degree intraday third wave. The 19/32 bar that created that pivot low was a hammer. They tried to take prices down that day to retest a low. They broke the low briefly but could not hold it.

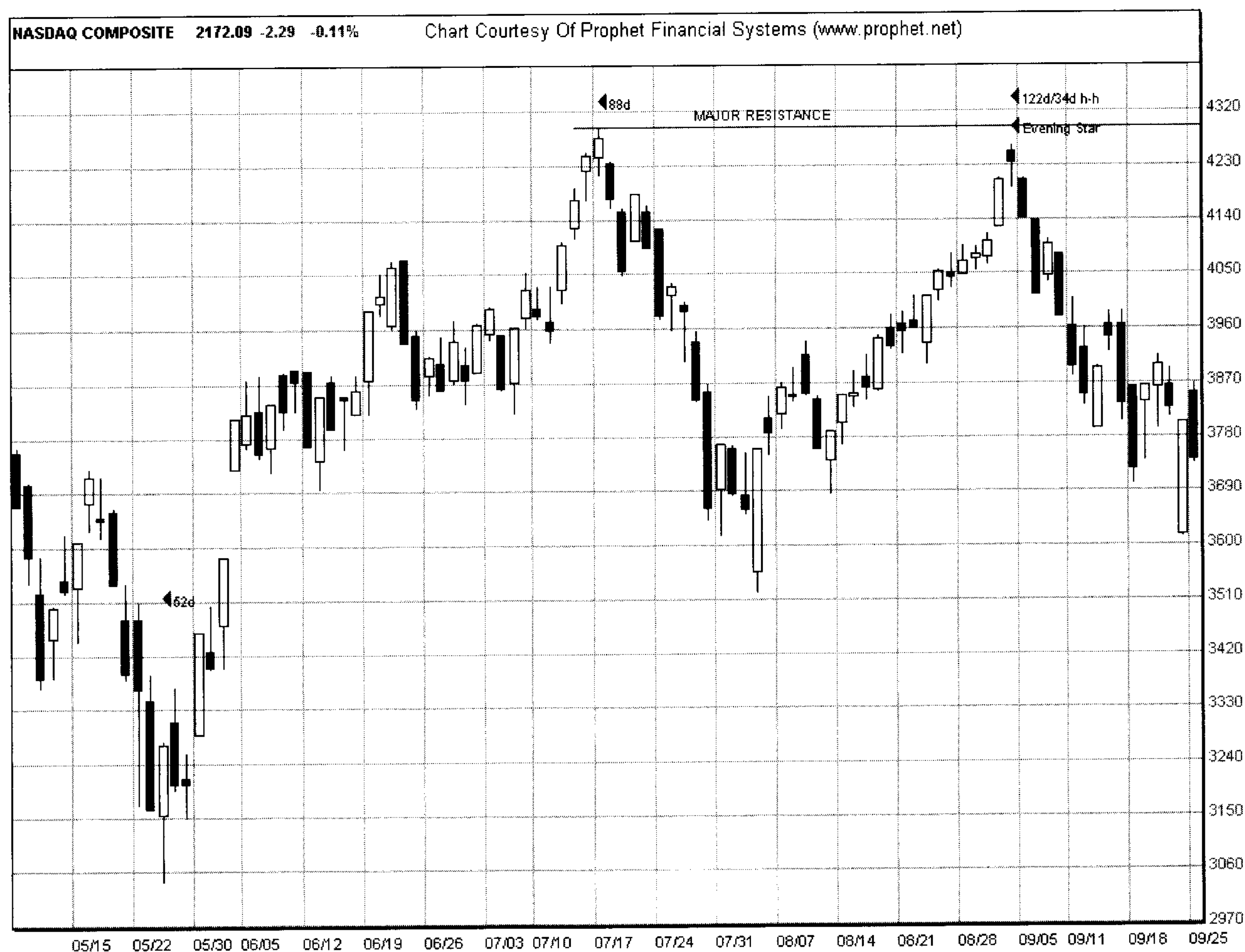
The next pivot was important for several reasons. In terms of the support/resistance, equation price action was testing a potential polarity zone of highs made the week of January 11th and February 21st. The low came right on the heels of the January high at the 11,060 area. In terms of our methodology, we had a time cluster that was 29 days from the March low, 60 days from the January low, and 127 days from the October low. The result of this triple cluster was a confirmation where former resistance turned into support in a very big way. The white candle that broke out shows a large bullish engulfing bar as it covered the previous six days worth of action.

This cluster led to the final leg up. As this was going on, the time relationships on the weekly scale were becoming very mature. We've already seen the precision of how the NASDAQ topped on various cycles in April and the SPX in May. I monitor many indices, and although they don't all align, they are close. The charts in this book are derived from my personal charts, and you can see exactly where we were in Dow terms in relation to the January 2000 high, October 2002 low, and the April 2005 low. We've already seen how the chart reacted to the October 2005 low.

By the time we got to the top, this particular leg was a Lucas 76 days up, and the next day's black candle was the 144th day off the October 2005 low. Obviously, there was no resistance line at this top. However, the Dow did react to a cluster of 76 days off the January and 144 days off the October low. In candle terms, the three bars at the top trace out a very good-looking evening-star pattern. We have a progression of white candle, high-wave candle with small real body at the top, and black candle the next day, which completes the evening star reversal. For those of you who may be new to candlesticks, high-wave candles have small real bodies with tails on both sides. The implication is uncertainty or confusion on the part of buyers. Uncertainty is the enemy of rallies because bull phases in all degrees of trend require conviction on the part of buyers.

**Figure 4.10**

NASDAQ Bear Major Resistance





Do you recognize the next chart, Figure 4.10? Check out the major resistance line created by the two evening-star patterns. The second evening star was a failure at a very important resistance line. It was also a cluster of two important time relationships. The first one, apparent on this close-up, is a 34-day, high-to-high cycle and, more important, 122 days off a very important top. The drop commences on Lucas day 123. This close-up really doesn't differentiate itself from any of the other charts we've looked at in this chapter, does it? We have the waves, resistance lines, candles, and appropriate time relationships.

As shown in these examples, some setups are better than others, and the markets don't always give us the perfect setup. Sometimes though, all you need is a decent pattern. Keep in mind that one of the most important factors in succeeding at trading is not assuming too much. This is something that Mark Douglas calls "The Uncertainty Principle."

I would consider Mark Douglas to be the best trading coach in the world. His books discuss how to go from a losing trader into a winning one. If you are already profitable, they show you how to become more profitable. Did you know it's possible to know too much? Of course, you want to have a methodology you can trust, and this book is giving you the best pattern recognition in the world. However, Douglas cautions against paralysis by analysis. You want to have an idea of what comes next, allowing you to enter a trade in the first place. Contrary to popular opinion, Douglas says you'll be more profitable if you don't know what comes next. What he's getting at is that "know it alls" don't make money trading. By entering the market with an approach that "anything can happen," we relinquish our control and the need to be right all the time. When we come to a place where we don't need to be right all of the time, then getting stopped out doesn't hurt us as much. We can actually get into a flow state and interpret what the market is telling us as opposed to imposing our will on the market (88–3).

Why am I indulging this trading psychology discussion right here? By now you've probably figured out the preceding chart is

## **Uncertainty Principle**

Mark Douglas, one of the most respected trading coaches in the world, cautions against paralysis by analysis.

You want to have an idea of what comes next, allowing you to enter a trade in the first place. Contrary to popular opinion, Douglas says you'll be more profitable if you don't know what comes next. What he's getting at is that "know it alls" don't make money trading. By entering the market with an approach that "anything can happen," we relinquish our control and the need to be right all the time.

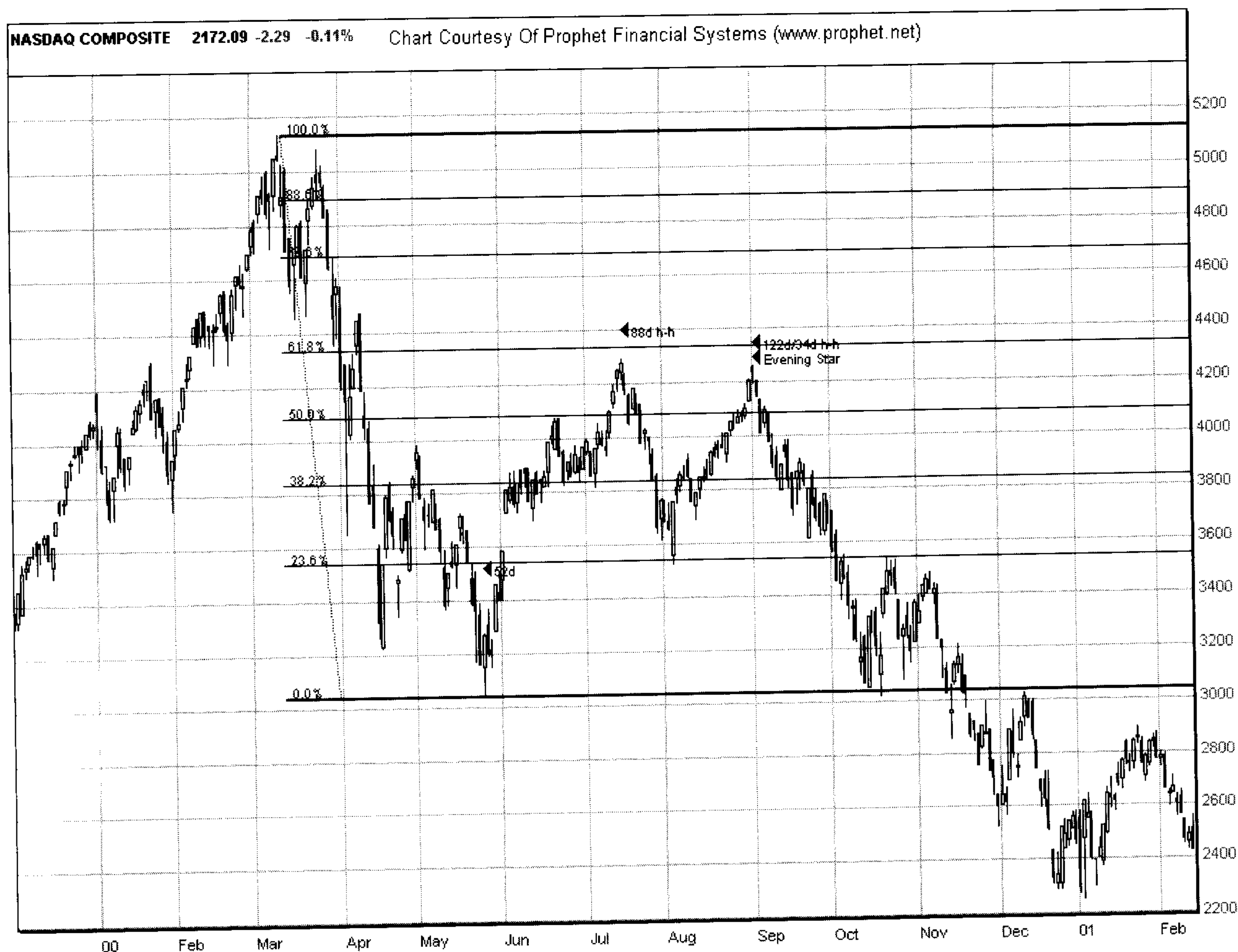
unlike the others in this chapter. It only looks like a garden-variety resistance line. Look at Figure 4.11 because it is the big-picture view of the situation above.

You are looking at one of the all-time great bear third, or C, waves in the history of the stock market and at the bear market crash and popping of the NASDAQ Internet bubble. The important information to gather from this chart is that nobody really knew it would go from the 4300s down to 1100, but it did. If you didn't take the approach that anything could happen, there is no way you would have been able to participate in such a trade.

I'm not saying you couldn't get into the move, but most people who assumed they knew what was going to happen were wrong, and 90 percent of those people ended up giving back 90 percent of their profits. Look-

**Figure 4.11**

NASDAQ 2000- Feb 2001





ing at it from the perspective of Labor Day 2000, all you really had was a failure at an important resistance line with classic candlestick formations. Assuming you were armed with this sort of information, you would have gone short. Sometimes we do get lucky, and that's why we are supposed to let our winners run.

Following through on our discussion of time resistance, we see this chart failed both times just short of the 61 percent retracement level of the entire first leg down. Now you can see what I mean about good setups but not perfect ones. If you were going to wait for the price action to nail the 61 percent line, you would have missed two very low-risk/reward-entry positions. Go back to the close-up and you'll see every other element was in place. The first high fails on the 88-day high-to-high cycle (Fibonacci 89–1) with the all-time-high in the NASDAQ. The next one on the 34/122 Lucas cycle. When price action fails just short of a key Fibonacci price retracement but turns on a Fibonacci time cycle, we call it time resistance.

Finally, time resistance also works the other way. Look at the first leg low near 3000. It completes in 53 days. The number 53 is not a Fibonacci or a Lucas number. I've found that when a leg completes without the benefit of a good time relationship, it is likely to be taken out down the road. We've seen many examples in this chapter of resistance of support and resistance lines that have held, and the main reason for it is that the turn came on a good cluster of relationships. This is not an iron law or rule; rather, it is a guideline to keep in the back of your mind at all times.

Although this chapter is by no means a comprehensive guide to candlesticks, I think you now have good working examples in all degrees of trend that will enable you to recognize the following:

1. Key support and resistance zones
2. Most important candle reversal lines
3. How support turns into resistance or the opposite via the polarity principle
4. How to combine this discipline with the time factor

You now know enough to recognize many favorable high-probability setups that you can use to your advantage. But there's more. We can still

eliminate many mediocre setups and the stop outs that go with them. To get really good reversals, we need to be able to recognize when a trend matures. A trend can mature in any degree. For example, a 1-minute trend will find maturity in 34 minutes. As we've seen up to this point, some of a chart's magic bullets are the wave count, the time count, and a good candle reversal pattern. The next bullet may be the most important one, as it implies the trend may not be pulling back for a short correction, but for a larger degree change.

## 5 | DIVERGENCES

Each year some hotshot rookie with every athletic and physical gift is drafted to play quarterback in the National Football League (NFL). Every team carries three quarterbacks, and with the 32 teams, there are only 96 jobs available in the whole country. If you consider the turnover, there are probably fewer than 50 openings when training camps open every summer.

Compared to the college ranks, NFL players are bigger, faster, and smarter. NFL defenses are very complex, and the game speed is the biggest adjustment for a rookie quarterback. As many of you know, the biggest crime a quarterback can commit is interception. The ones who throw too many interceptions compared to touchdown passes don't last very long.

It's rare for a rookie to come into the league knowing exactly what to do and when to do it. Even the best quarterbacks are plagued with high-interception ratios early in their careers. The ones who make it mature over time. In their maturity curve, they learn not to force situations and take what the defense gives them. How do they mature? They develop patience.

Luckily, price charts are not as complex as some NFL defenses. However, if you don't have a game plan, it could be more complicated. I wouldn't attempt to fly a plane without training, and you shouldn't attempt to trade without training. However, many quarterbacks are good enough to make NFL rosters, just not good enough to stick. By the same token, anyone with a bankroll can attempt trading. But having a bankroll doesn't make one a trader, and anyone good enough to hang in there for a while may be good enough to participate in the game. However, participating isn't good enough. You have to be able to stick around long enough to overcome your mistakes to be profitable.

For quarterbacks, this is reducing their interception ratio. For traders, this is reducing the stop out ratio. Don't get me wrong, profitable traders will get stopped out a lot in the best of circumstances. If you don't swing, you'll never connect. What we want to do is eliminate the dumb mistakes that bleed the bankroll.

## MACD AND DIVERGENCES

One of the biggest mistakes traders make is prematurely picking tops and bottoms. This chapter is designed to reduce the number of times you will get stopped out because you went against the trend prematurely. There are several magic bullets that will kill a trend in any period. One of those would be a complete five-wave sequence. The trick is differentiating the top of the third from the top of the fifth wave.

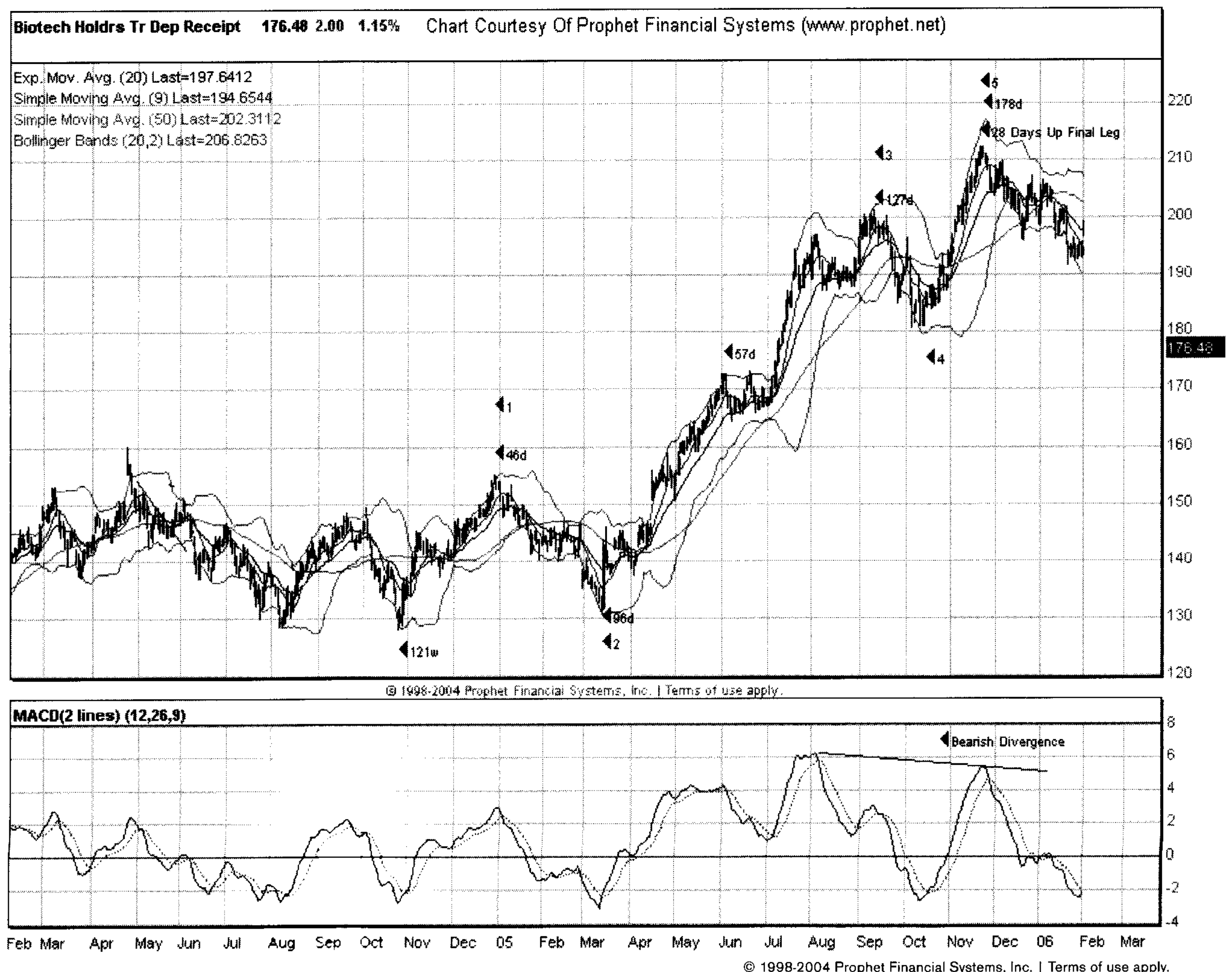
The best way, other than the time factor, to confirm a wave count is by using traditional momentum indicators. The best one is the MACD, (Moving Average Convergence Divergence). Created by Gerald Appel in the 1960s, the MACD shows the difference between a fast and slow exponential moving average of closing prices. Appel used the standard periods of 12 and 26 days.

A nine-day EMA of the MACD, called the "signal line", is then plotted on top of the MACD, functioning as a trigger for buy and sell signals. When the MACD falls below the signal line, it is a bearish signal; when the MACD rises above the signal line, it is a bullish signal. The best use of the MACD is to track the prevailing trend. When the MACD keeps pace with price action, the trend is intact. When price action makes a new

relative price extreme (high or low) for the move but the MACD does not, we have the potential for a trend change. The MACD confirms the waves because it tracks price action up to the top of the third wave. By the time we hit a fifth wave, the MACD will not confirm, and that's the signal that the trend is losing steam.

The problem many traders have is that they mistake a divergence in the MACD for a sell signal around tops and buy signal around bottoms. This is just not the case. Momentum divergences can and do persist for days and possibly weeks. Traders can and do lose significant portions of their bankrolls waiting for the trend to finally change.

**Figure 5.1**  
Biotech Holders Trust (BBH)  
Divergence Daily







out the five-wave impulse very easily. Follow the MACD closely. It tracks the rally all the way up to the August peak. Although there is a smaller negative divergence that does lead to a 10 percent decline from the September peak, the important point here is the final leg up. The divergence you see on the September peak is a lower probability occurrence. Still, that peak tops on the 127th day of the move off the March low. The chart traces out a sharp rally off the October low. It looks like a third wave but ends up being a blow off fifth wave top since the MACD never confirms the new price high. The fifth wave is 28 days in duration and 178 days off the second wave low in March.

Because this chart does sport two negative divergences, you could have taken a speculative short on the 127 bar since there was a negative divergence. I have no doubt that there was a negative divergence on an hourly period too.

## Length of Divergences

Figure 5.2 illustrates just how long a divergence can persist. Momentum on this weekly SPX chart peaked in December 2004. The high was taken out in July/August 2005. While there was a correction into October 2005, the divergence persisted until May 2006, accounting for 80 SPX points.

Because this was a big divergence on a weekly time scale, we had to wait a long time for the cycles to catch up with the MACD. Finally, a confluence of weekly cycles caught up to the SPX, as the triple cluster of relationships all the way back to August 2004 enabled traders to cash in on the larger degree turn.

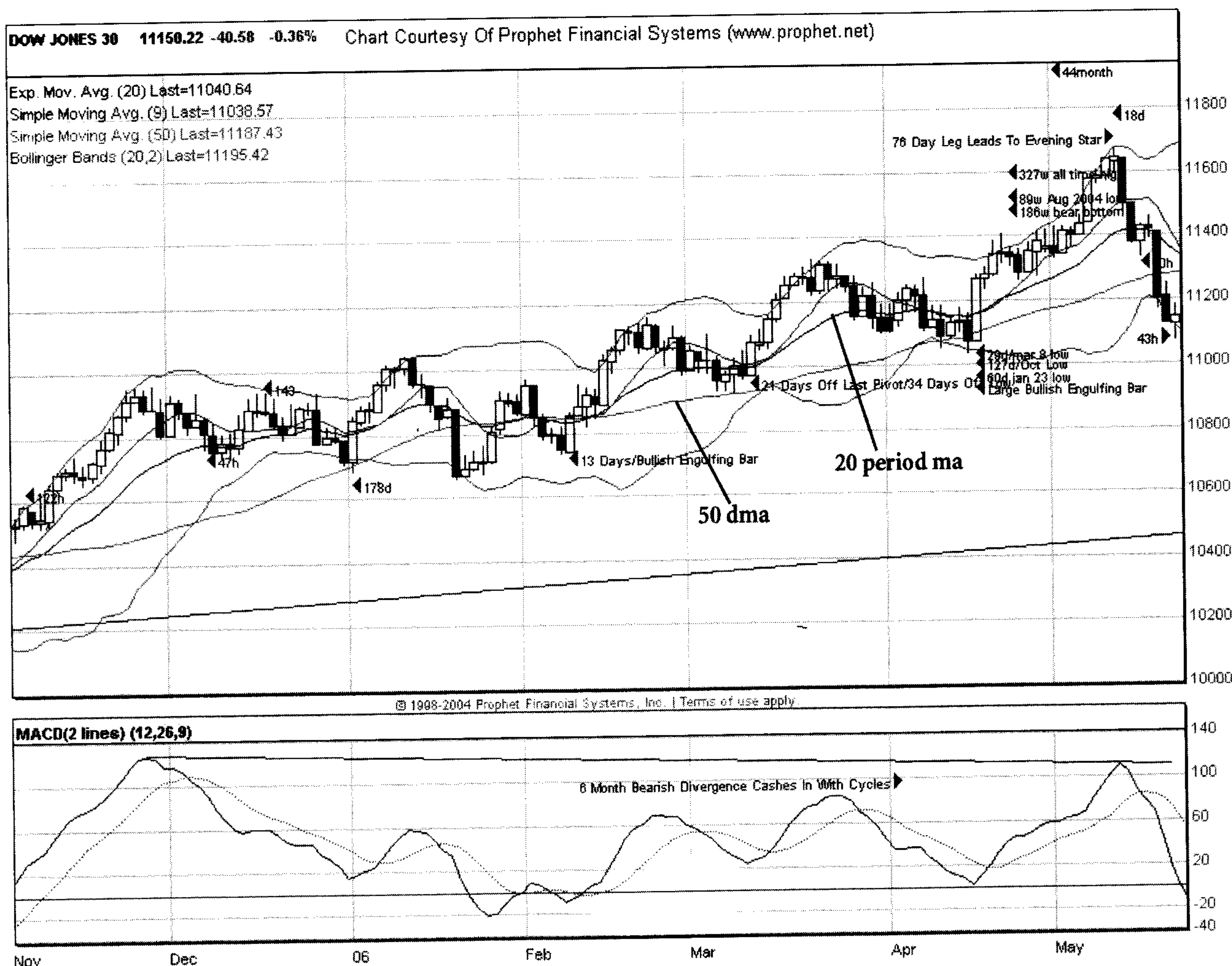
There are a couple of other concepts to introduce here, and I've included stochastic (slow 15, 3) into the discussion. Some traders consider a MACD crossover of the light and dark lines to be a buy or sell signal. Others look for the oscillation of stochastic from oversold/overbought with the dark line crossover as the sell/buy signal. This method works, but not enough of the time to keep the stop out ratio low. I recommend combining either the MACD or the stochastic crossover with the time factor. On the weekly chart, this strategy would be helpful to those who have more time, such as mutual fund players. In this case, we have three instances of MACD and/or stochastic buy crossovers. Each one is a pivot we've covered extensively in this book. The August 2004, and April and October 2005, buy

crossovers all have excellent time relationships. We haven't spent any time on moving averages yet, but the 20-period exponential moving average has been added to this chart. You can clearly compare and contrast it to the 9-period moving average. In a strongly trending market, the 20-period moving average keeps you on the right side of the trade so you don't attempt to short it too early. Here we have the exponential average but a simple moving average wouldn't have yielded different results.

This example illustrates how the time factor is supported by the institutional trading community. They just don't realize it. Most large institutions are watching indicators like stochastic and MACD and act when they get extreme and crossover. The simple fact is that by using the time factor, you can get an edge on the institutional crowd. By the time the big boys

**Figure 5.3**

Dow Daily MACD Divergence into May 2006





act on these traditional indicators, the move has already started, and the best risk/reward ratios are already gone. You can track these bars, and, if you were watching this chart in real time, you could have scaled down to a daily or hourly time frame to get a better price. Keep in mind the big money players don't have the flexibility of individual traders. We are working with leading indicators. MACD and stochastic are trailing indicators. I've introduced the moving average concept as another way to stay away from pulling the trigger on the divergence too soon. The challenge is to know when to get a jump-start on the reversal. Instead of waiting until price action falls below the moving average to exit a position, you will be able to recognize the timing model as a leading indicator.

A similar chart is the Dow daily covering the last six months of the rally into May 2006 (Figure 5.3). We covered the finer details in the prior chapter, but here you can see how the bearish divergence in the MACD persisted since November 2005! In this case, you can see how pattern recognition via the timing model works with the moving averages in a choppy environment. A 20-period moving didn't contain the dips so easily (in this case the exponential is shown but a simple yielded similar results). The 50dma contained the rally with few exceptions. In a period of a long-standing bearish divergence, the combination of the candlesticks combined with the time bars gives you an idea of market precision.

The preceding two examples give you an idea of how long a divergence can persist and why the chart finally turns over. Armed with this game plan, you can develop patience and confidence not to give into the crowd psychology that you see on television. And, this works in all time frames. Keep in mind that while all of this is happening, sentiment is such that a new bull market is in place, the only way the market can go is up, and even objective traders who don't let emotion rule the day have no idea of where the top is.

## **Time Clusters to Forecast Divergences**

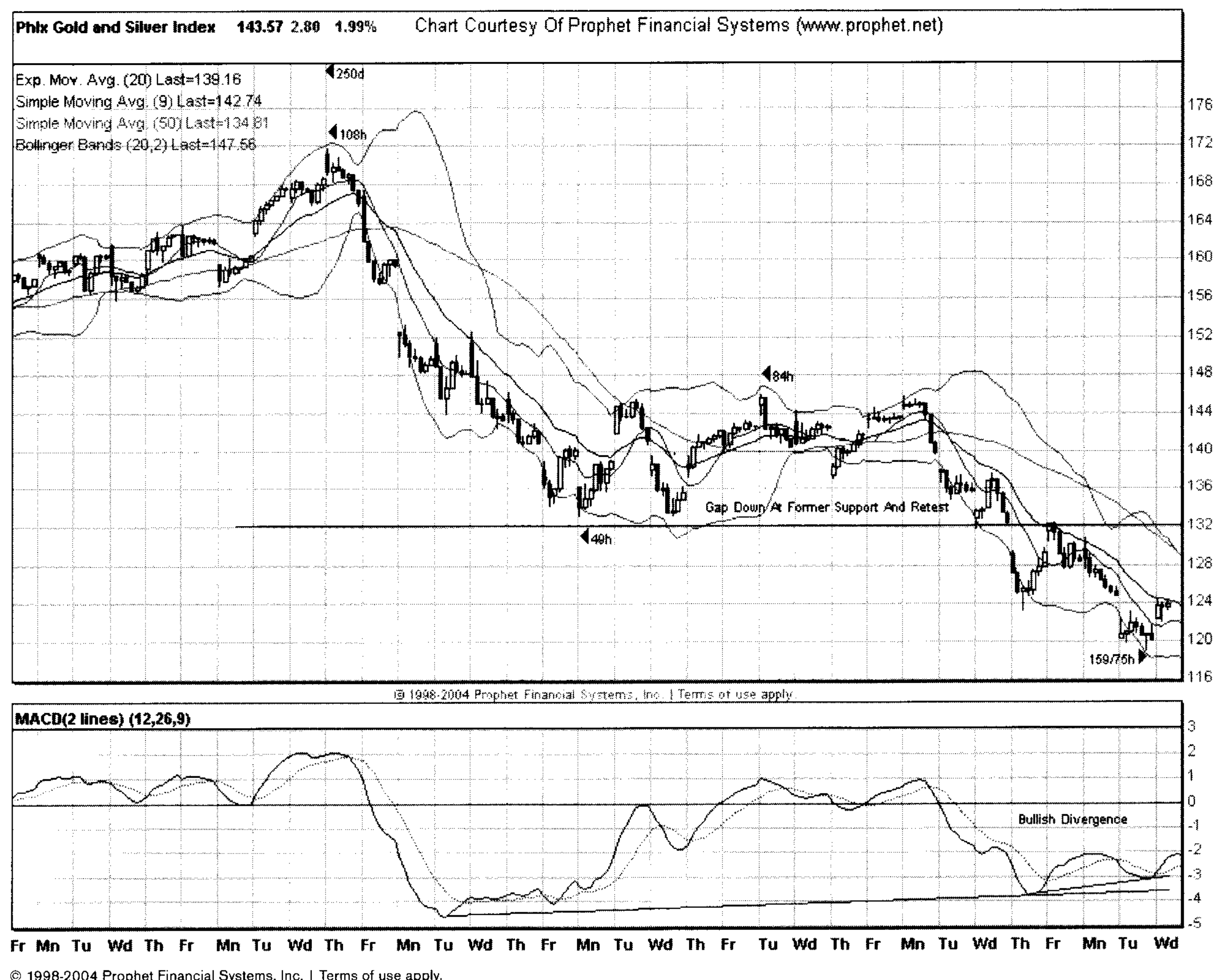
In the past few years, market environments have been choppy and many of the trends in different financial markets have been very intense. Moves that used to take months prior to the advent of the Internet now seem to complete in a matter of days or even hours.

The next chart, Figure 5.4, is the 2006 correction leg in the XAU. There are many time relationships hidden on this chart, but I'm going to stick with the topic of divergences here for simplicity.

Bearish momentum peaks on the first wave down. As in prior examples, most notably the big NASDAQ bear, the leg does not complete in the correct number of hours, which is your clue that there is more to the move at some point down the road. Recall the NASDAQ bear's first leg was 53 days. This time we are looking at 49 hours. Remember, this is a high-probability tendency, not an iron law. The correction or B wave up after that 49-hour wave confirms in 35 hours and can almost be considered a triangle.

**Figure 5.4**

2006 XAU Hourly MACD Correction





From the 84-hour mark, we ultimately find a cluster at the bottom of 159/75 hours. The implication is that the downtrend runs out of gas and turns up right at the start of the 160–62 hour window as well in the 76th hour off the secondary high. The 20-period moving average does a good job containing the move when the market is trending strongly. At the bottom, when we get the time cluster, you can see why the divergence is about to kick in. A time cluster will also warn you that the moving averages are not going to contain the downturn anymore.

Trends will usually die in the first hour because they are a spillover from the prior day. That's why when we get some news event such as employment data or inflation, we expect a continuation of the day or days leading up to the event, which is also a spillover from a very strong week.

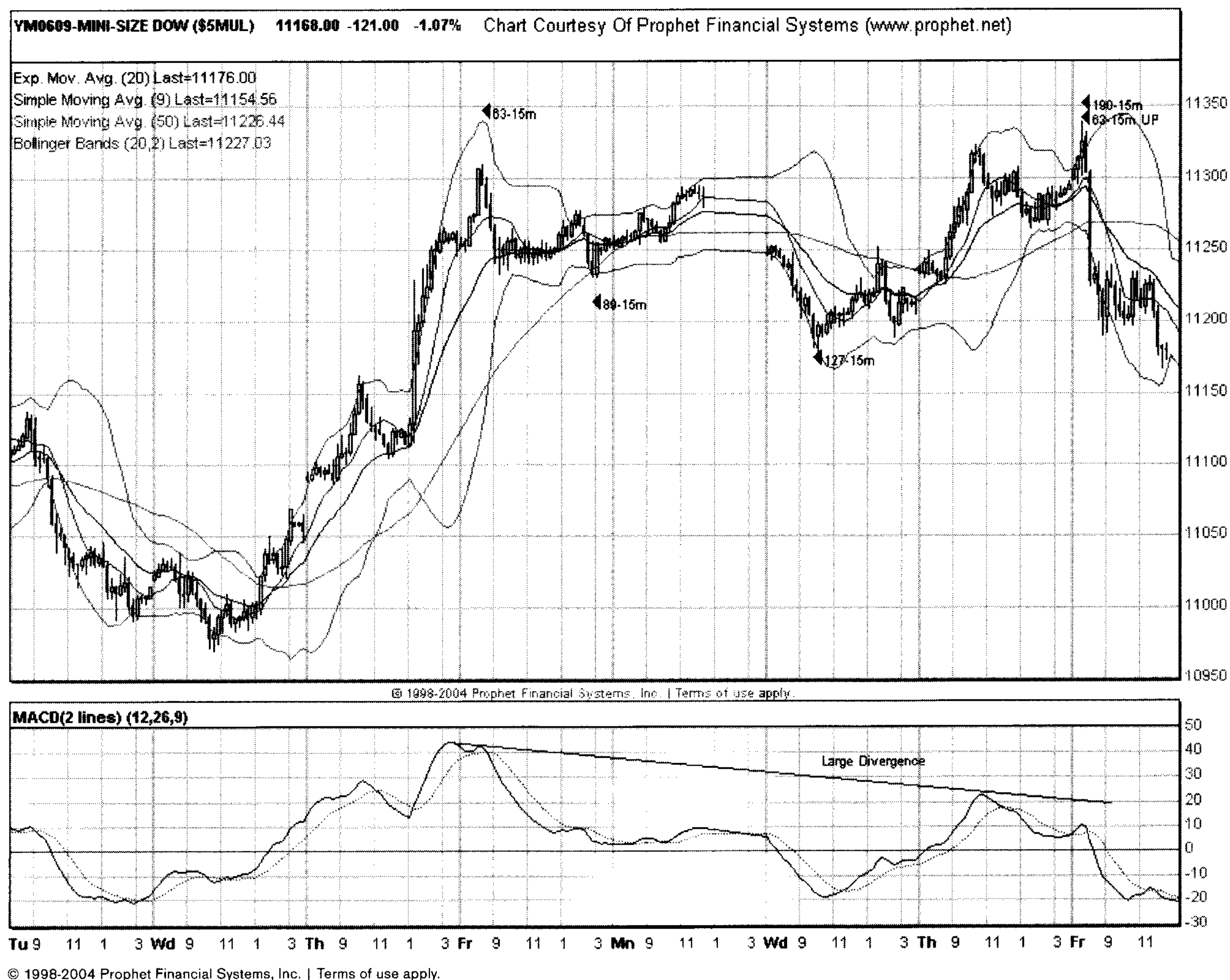
## INTRADAY CASE STUDIES

I do intraday forecasting, and the most common email I get is from people who want to know when the top is going to kick in. There is a tendency among intraday traders to want to fight the trend and go the other way for either a pullback or a spike. Intraday forecasting or trading offers an added challenge that is not a major factor on the daily charts. Because we are dealing with only one day, the odds are that once the die is cast, it won't change for that day. Usually the public will place their trades on the open based on some emotional news story. Roughly 45 minutes to an hour into the day, the trend will reverse. When it does, that's usually the direction for the rest of the day. Why does this happen? Trends will usually die in the first hour because they are a spillover from the prior day. That's why when we get some news event such as employment data or inflation, we expect a continuation of the day or days leading up to the event, which is also a spillover from a very strong week. Let's say we've been rallying for a whole week. Then on Friday, they release a good jobs data report in the pre-market activity. As expected, the reaction is positive. The futures spike straight up and carryover into the open. The public buys up the good news. Unfortunately for them, this is usually the top. Within the hour, we are going south. The main reason for the change of direction is that we've come to an important intraday turn window, which may or may not cluster with the larger daily count.

The point here is not to get into a discussion about news events. Just keep in mind that once we get the turn after the first hour, we are likely to have set the tone for the entire day. Once we've set the tone for the entire day, there is no use in fighting the trend. At that point, it's best to go with the flow until we see the divergence developing. To see a divergence, first we need a leg to develop. This leg is a continuation of the trend, which is the intraday third wave. This leg usually goes beyond what people expect. Finally, we'll get a small pause or consolidation. Then, there is a continuation in the same direction. Once we take out the high, we can start looking for divergences that tell us the trend is getting tired. As we discussed earlier, divergences will persist. At that point, we have to wait for an intraday turn window before that divergence will cash in.

**Figure 5.5**

Dow E-mini 15 Minute MACD Divergence



I will now take you through a series of intraday examples. If you only follow this discipline, you will save yourself hundreds, if not thousands, of dollars in needless stop outs. You will also sidestep the emotional frustration and aggravation that goes with it.

## Dow E-mini

Figure 5.5 is a 15-minute chart of the Dow E-mini over the course of seven trading sessions. Although it's not a rule, check out the two major highs on the chart. Both occurred shortly after the open. I don't recall the exact news event, but this kind of condition happens quite often. Study the progression from the low. On the intraday basis, we have a series of advances followed by a series of small pullbacks and finally a small-degree high in the middle of Thursday. This pullback doesn't last and we go parabolic to the upside. After the shot to the moon, notice how the MACD is still in line with price action. This chart turns on the 63rd bar, which barely misses our 62-bar window. One of the challenges to technicians, forecasters, and traders alike is determining whether a high is the end of the trend. Although the 62-bar window is a good place for an intraday pullback wave, the fact that we don't have a divergence yet is our clue that the larger trend is not over. We also need to pay attention to the candles. We can hit that 62-bar window, but if the candles don't respect it, we won't get the change in direction. Note that when we hit a high-probability time bar, we are also going to come back to the moving averages. Those of you who are really aggressive may find these excellent points on the chart for quick scalps or hit-and-run trades.

This particular pullback doesn't give us a nice cluster, but it does complete on the 127th bar off the low. I can't stress enough the importance of the 127-bar window. In this case, the pullback completes, and we start another progression that takes out the prior high. We put in a lower tail on the candle. The difference this time is that MACD does not line up with price action, so you can be sure of a reversal 100 percent of the time. Here is where you finally put the odds in your favor. The only challenge is in knowing when to do so. Here is where the patience needs to kick in.

With intraday divergences, we don't always get that beautiful cluster you witnessed on the daily scale because we are dealing with waves from a daily degree of trend scaled down to the intraday degree. There are dif-

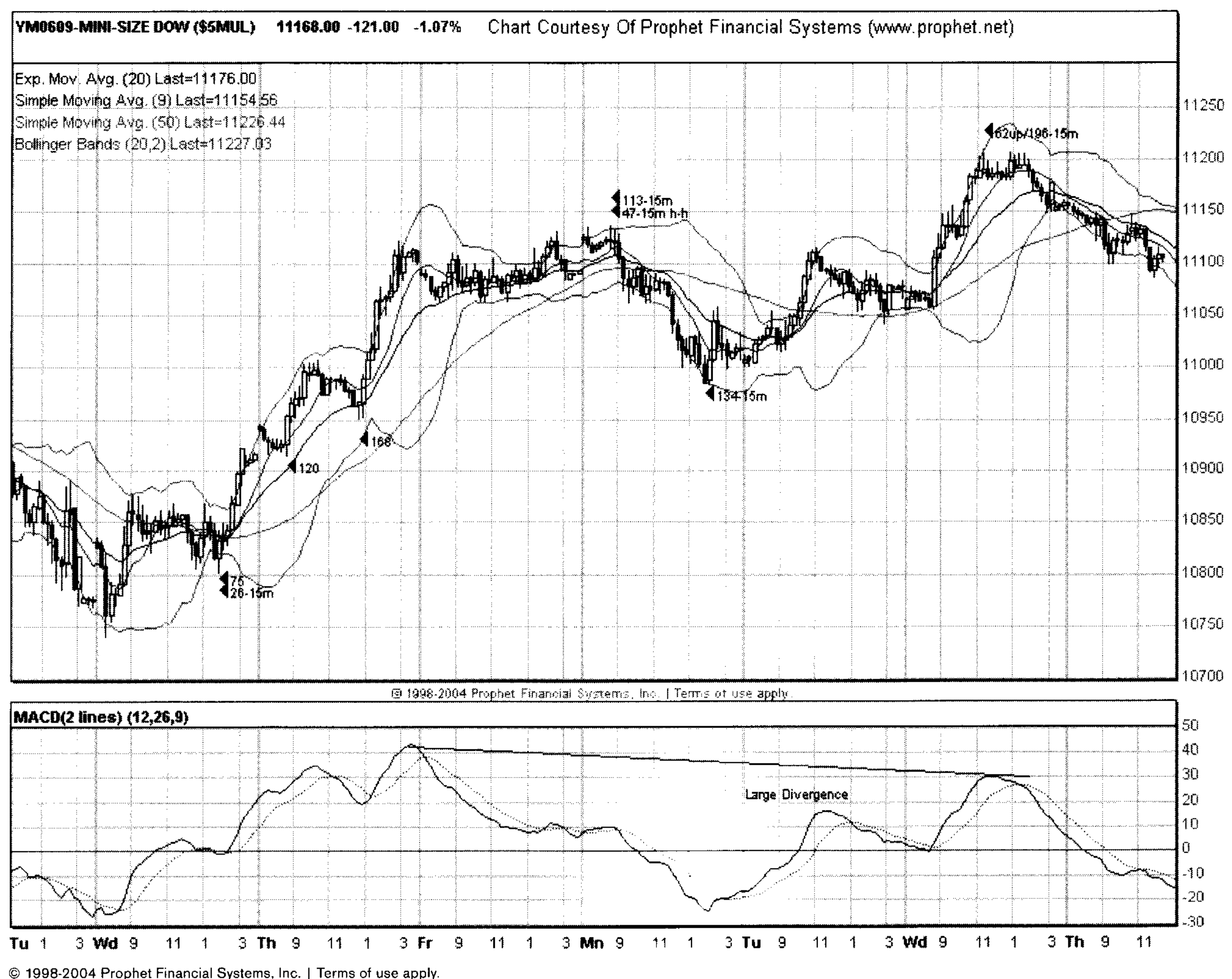


ferent degrees of trend. If we are only coming to the top of a larger third wave, we might not get that big cluster. For instance, in this case, we top on a daily scale of seven days, which is good enough. The final leg is 62 bars, very good. However, the bar count from low-to-high is 190, which misses a 189 window by one bar. What you want to do in this case is pay closer attention to the individual bar count of that last leg as opposed to the entire trend. Why? It could be that we are about to have a larger degree pullback, but this leg may not be the overall top and end of the complete trend.

I don't want this to get confusing, so let's make this concept very simple. Once we've already hit a high, pull back, shoot for the fresh high, and pay more attention to the individual count of the final wave. That is where the

**Figure 5.6**

Dow E-mini 15 Minute Same larger trend



divergence is going to confirm. If we are lucky enough to get the daily count lining up with the low-to-high intraday count AND the final wave, then chances are we have a larger degree turn in the works. Also, not to be understated are the candlestick lines. In this case, at bar 191, we have a very nice looking bearish engulfing reversal pattern.

The next chart, Figure 5.6, is another leg from the same larger trend in the Dow. The bars that have numbers below not annotated with a 15-minute label are the underlying 5-minute markers. For instance, where the second wave completes on 26–15 minute bars, we also have a cluster of 75–5 minute bars and the larger move takes off on the 76th (Lucas) bar. There is also a bullish piercing candle. In any event, the first high is near the close on Thursday. We continue higher after a short pullback, but MACD does not follow the price action. This high, which also happens in the first hour of trading, kicks in on 113–15-minute bars but also a 47-bar, high-to-high cycle. It's not annotated, but that last choppy leg is 29 bars up. Look at the candles; we have a couple of high wave (small real body with tails on both sides) candles.

This principle is exhibited here as the pullback not only ends on the 134th bar off the low, but also clusters with the previous high to create a 21-bar pullback (bars 113–134). The best way to buy a pullback is to get a cluster of at least two time relationships and have it confirmed by a candle reversal formation. Here it's that bullish piercing formation. I'm being repetitive, but these are high-probability setups you should treat like gold. The final leg takes out the previous high on a 62-bar leg where the bearish divergence kicks in. At the top, the final bars take the form of an upper tail followed by another high-wave candle.

## Crude Oil

The next example, Figure 5.7, is a B wave in the larger correction of crude oil in the first half of 2006. The first leg up completes in 33 bars, a common relationship. The low is created in the 17–19 bar window. Once again, moving average players will have advance notice the moving average lines won't hold in the near term.

What we are doing here is playing the probabilities. In this case, we get a higher high (the middle high) on the 67th bar of a high-to-high cycle, which doesn't have any other relationships going for it. This middle high is



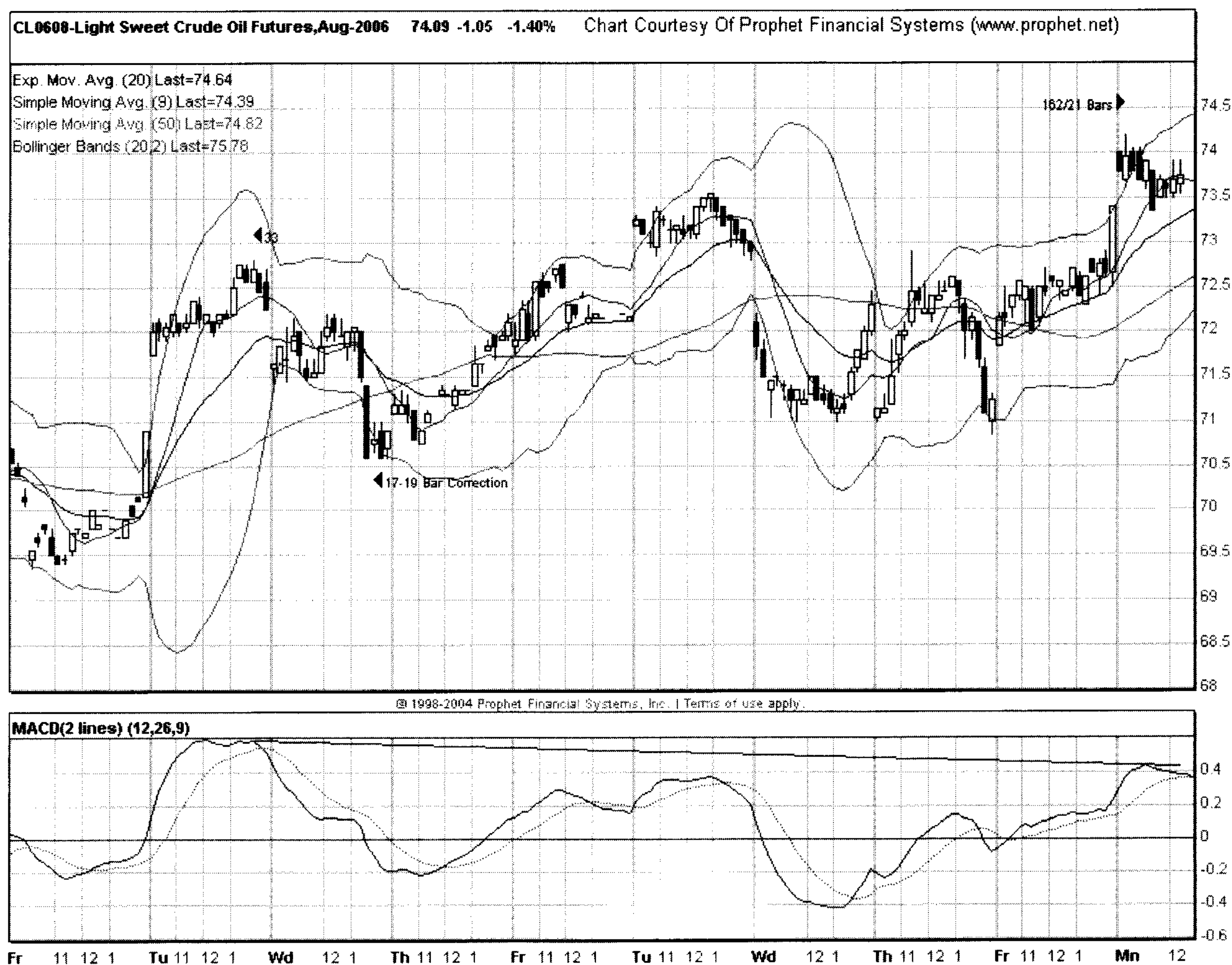
taken out one more time even though there is a bearish divergence working, and this time the high comes in on the 162nd bar of the sequence. This 162-bar clusters with the final 21 bars to create a nice-looking high. Check out the next chart to see what happens next.

Figure 5.8 shows the entire sequence of events as well as the final touches of the A wave down along with the start of the C-wave progression. The low finally hit at 68.75 a couple of days later, which is not shown.

What is our other clue that this is just a B-wave, 162-bar move up in a larger move to the downside? We've covered this elsewhere, but this chart exhibits five overlapping waves to the upside. The fourth wave down violates well into the price territory of the first wave up. As a matter of

### Figure 5.7

Crude Oil Futures B Wave  
Divergence I, Aug 2006



fact, check out that first wave up and notice the gap up at 71. Check out where price action in wave 4 ends—right near 71. You can also see other instances on the chart where spikes or pullbacks complete just in the price territory of other gaps thus confirming what we discussed in the chapter on support and resistance lines.

## US Dollar

This isn't a book about Forex, but the next example is of the U.S. Dollar chart. The Dollar chart offers the exact same principles as many Forex charts and has a good correlation to the USD/JPY chart.

**Figure 5.8**

Crude Oil Entire sequence of events





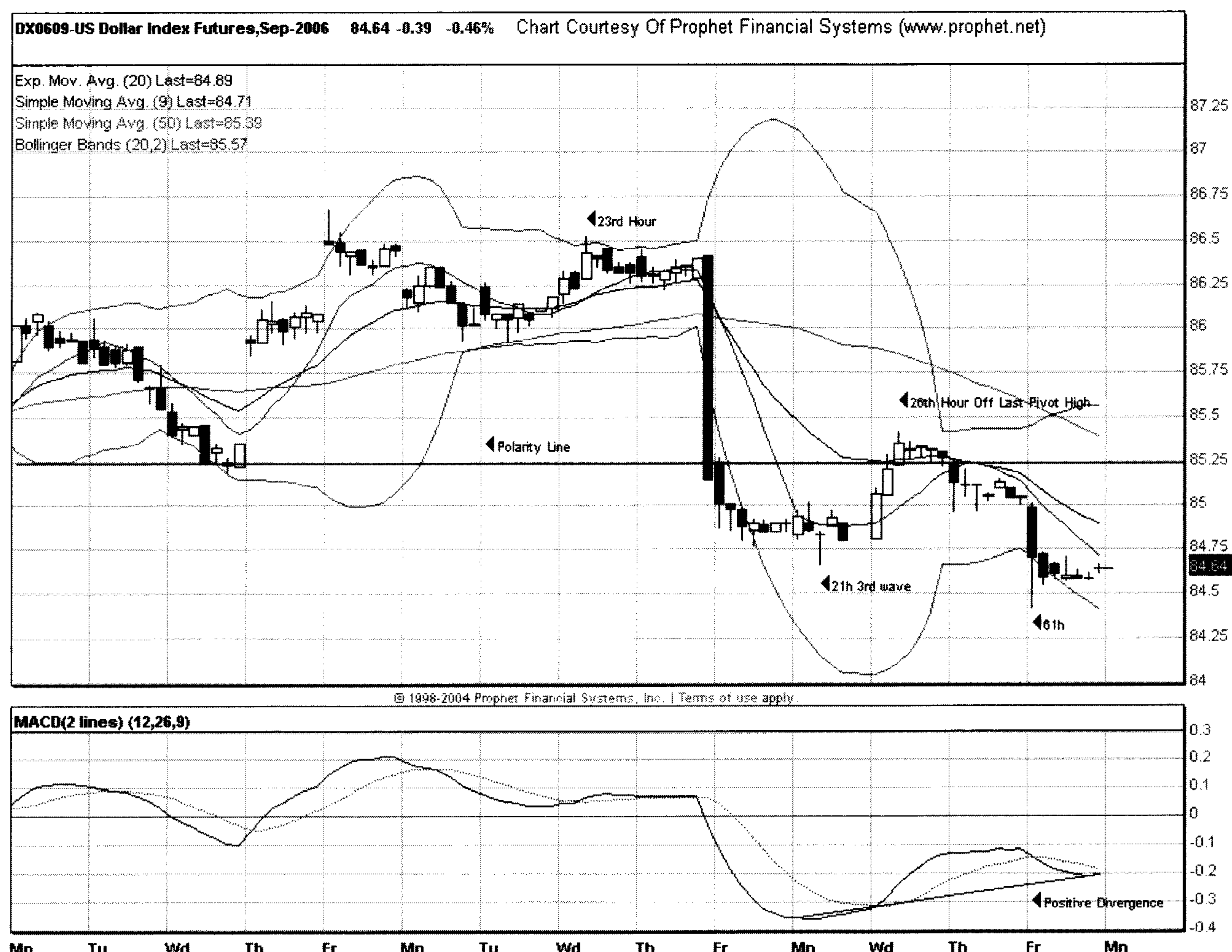
In this example (Figure 5.9), we have a five-wave progression to the downside. We have a shallow first leg that tops on a 23-hour, high-to-high cycle. Note the large black candle; it's the 34th bar in the sequence. This time bar supersedes all moving averages. The third wave is 21 hours in duration. The fourth wave up completes in 26 hours of a high-to-high cycle off the last major pivot at the top of wave 2.

More important, however, is the polarity line it creates as former support on the way up now becomes resistance. Once we have the fourth wave high and take out the prior low, we start watching for a sign that MACD is not confirming the new low. This is our cue for a potential reversal and finally the 61-bar cycle kicks in. That would be signal of at least a chance

**Figure 5.9**

US Dollar Hourly MACD Divergence

Sept 2006

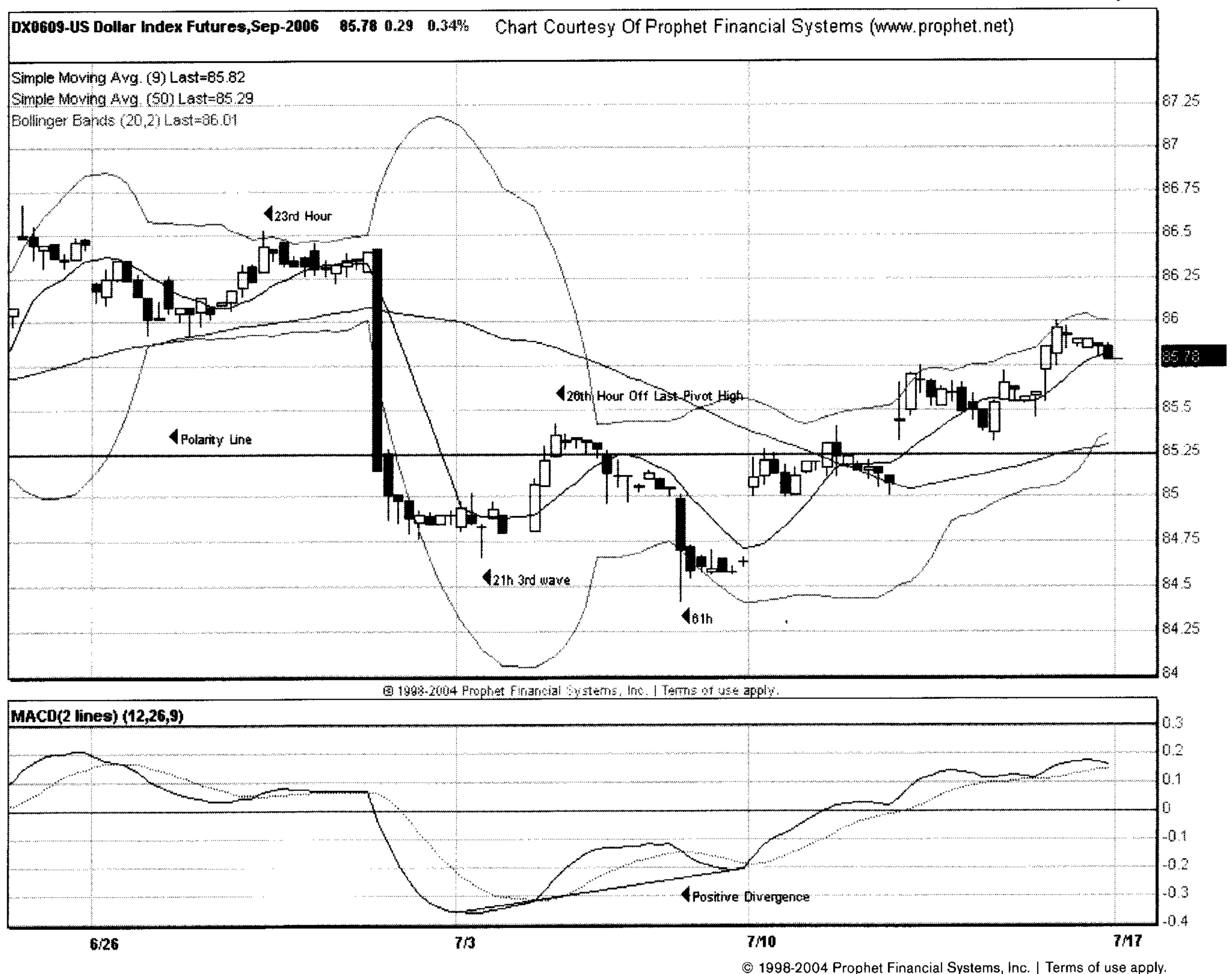


to take an intraday trade, as in this case the price action is going to have to retest the polarity line. Note that on an hourly basis at least, we don't have a good candle reversal bar to go along with the divergence or number bar. As we get to the next chart, you will see a gap up that confirms the 61-hour cycle. This is only an hourly chart, and a move of 75 pips is not bad in terms of Forex trading, but we can't assume a major reversal yet.

Look at the progression on Figure 5.10. We did much better than a drift up to test the polarity line. The chart gaps up, clears through intraday resistance, and goes all the way up to 86. The move is over \$1.50, and I think most Forex traders would be happy with that. The leg up has gone all the way to retest the next level of resistance, which is the 61 percent price retracement of the 61-hour leg down.

**Figure 5.10**

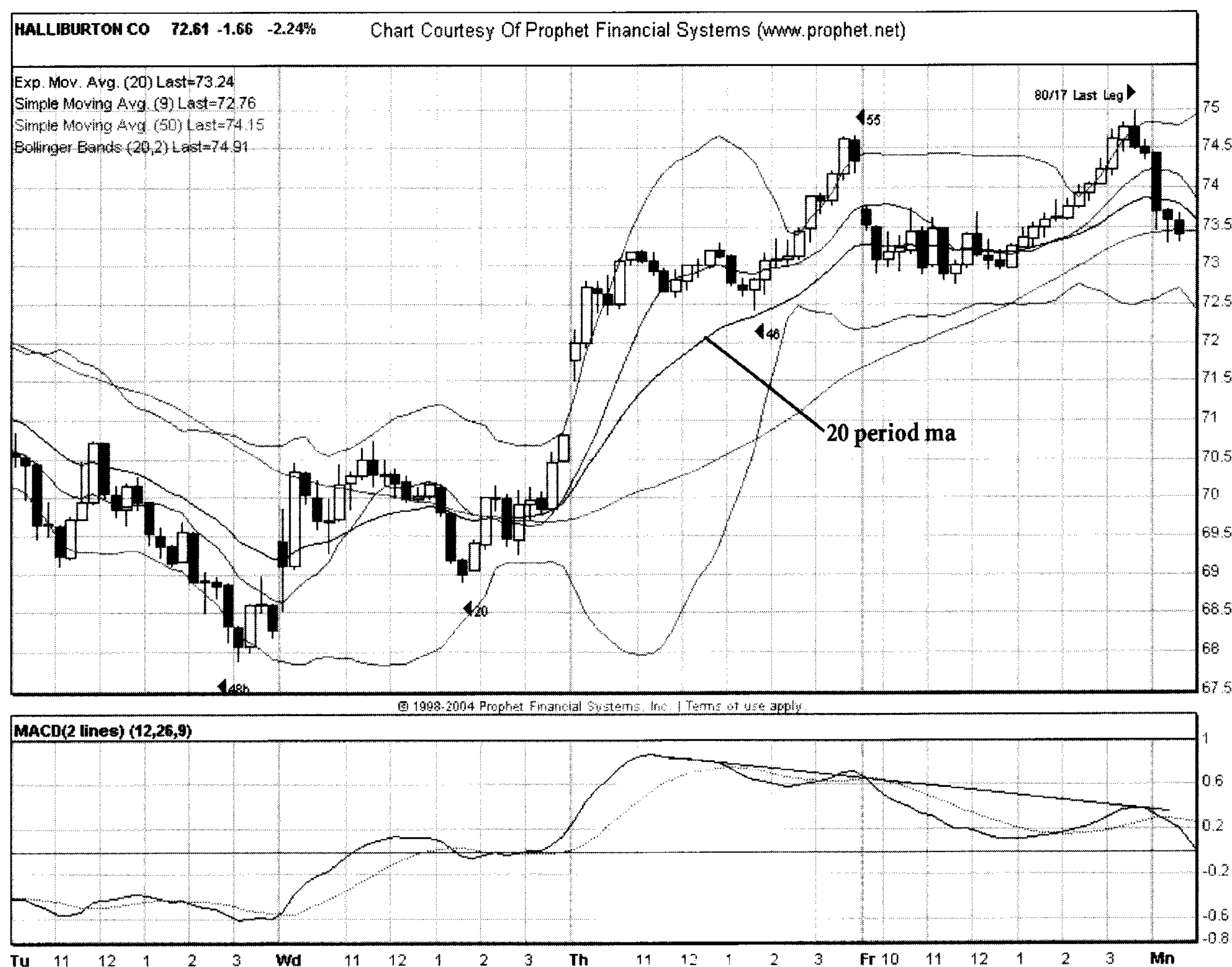
US Dollar- gap up confirms the 61 hour cycle



This progression illustrates that it is possible to catch a divergence perfectly with the benefit of a good candlestick reversal pattern. I don't want to send mixed messages here. Some setups are obviously going to be better than others. The hourly time frame didn't give you a good candle. The best thing to do in that case is to scale down to a smaller time frame. While I didn't insert the chart, when I did scale down to a 15-minute time frame, I found a harami candle that retraces nearly half of the last black candle on the way down. This is not the highest probability reversal candle, but at least it is better than the candle we have on the hourly bar.

**Figure 5.11**

Halliburton 15 Min Bearish  
MACD Divergence





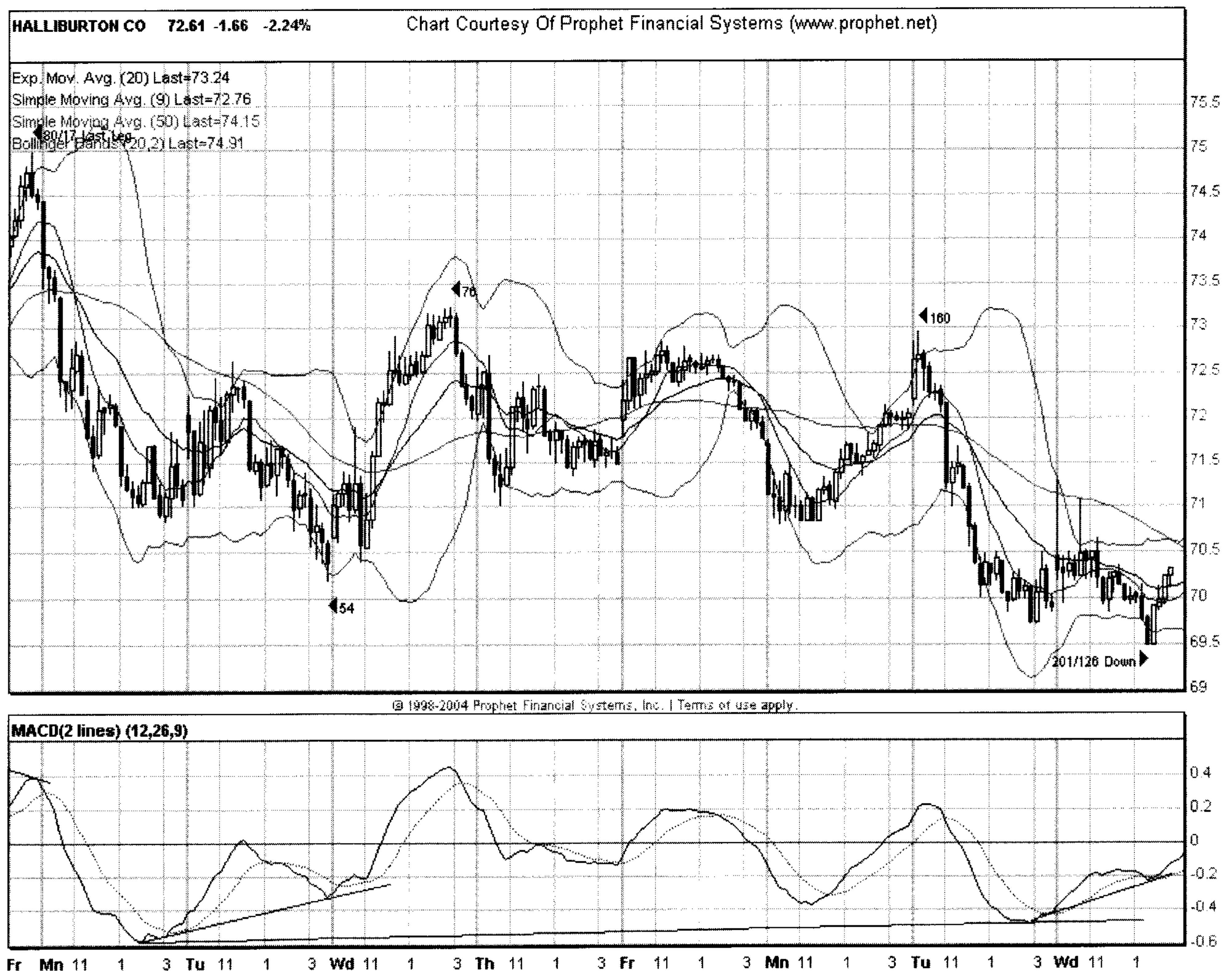
## Halliburton (HAL)

I realize that many of you don't trade the indices and you'd like to see how this principle works on stocks. This divergence principle is so important that we can't overkill it with too many examples. The next two charts highlight a progression from Halliburton (HAL).

The first chart (Figure 5.11) shows a 7-point (68–75) bullish progression on a 15-minute basis. This chart highlights many of the principles we've applied to the indices. We can make an argument for a five-wave progression, but also some of you can make a case for a seven-wave progression. Does it really matter? Using our principle of setting up for the largest move in the sequence, we see this chart ends the retest of the low leg on

**Figure 5.12**

Halliburton, shorting opportunity from divergence



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the 20th–21st bar. In this case, we go from 70 to 73 in less than one day. Of course, we didn't know it would gap up, but the entry on bar 20–21 would have put you in this trade in plenty of time.

You can easily see the best part of the move ends around the 73 area on the way up where the bearish divergence kicks in. Although bar 46 offers you a chance in and is also supported by the 20-period moving average to get a couple of points, you need to be careful. When we make a new price high, the MACD does not confirm. It reverses, at least temporarily, on the 55th bar of the move. If you went short there, you ended up with a small gain, or if you held, you ended up getting stopped out. We don't live in a perfect world. Finally, it turns up yet one more time as the final leg tops on the 17th bar (Lucas 18–1) as well, just missing the 79-bar window by one. The 79-bar window just expires as the 80th bar creates a spike right on the open, but it drops from there. The 80th bar is a better bearish engulfing formation than the harami back at bar 55. The action with the tail at bar 80 confirms the 55-bar area as key resistance. The next chart, Figure 5.12, shows you what kind of a nice shorting opportunity this divergence creates.

Notice how we topped right near the close? The move down exhibits no less than three bullish divergences along the way. The new trend rolls over at 75 and hits a temporary low near 71 on Monday. The next day we take out that low, setting up a small-degree, bullish divergence. If you were watching this chart in real time, you would have seen that once the low at 71 is eclipsed, the MACD is not even close to the reading of  $-.6$  registered on Monday. It reverses on the 54th bar of the sequence, which the more aggressive of you would take as a scalp trade. It tops once again on the 76th bar (Lucas Wave) of the pattern.

Price action spikes up, reverses on the 160th bar of the trend, and makes its final descent. The more aggressive will stay short, while those who are more conservative are not likely to stay where there is a lingering divergence. Although this pattern makes a new price extreme, at no time does MACD ever take out the A wave low on Tuesday. In this case, we have a lingering divergence that confirms on the following Tuesday when the low is taken out. The rest of you would wait for the time bar to kick in and clean out the divergence to go long. The next low is taken out at the end on the Wednesday with another bullish divergence. The whole move is

201 bars, which narrowly misses a Lucas 199, but does turn for the entire second thrust down on the 126–127 window (shared bar at #76).

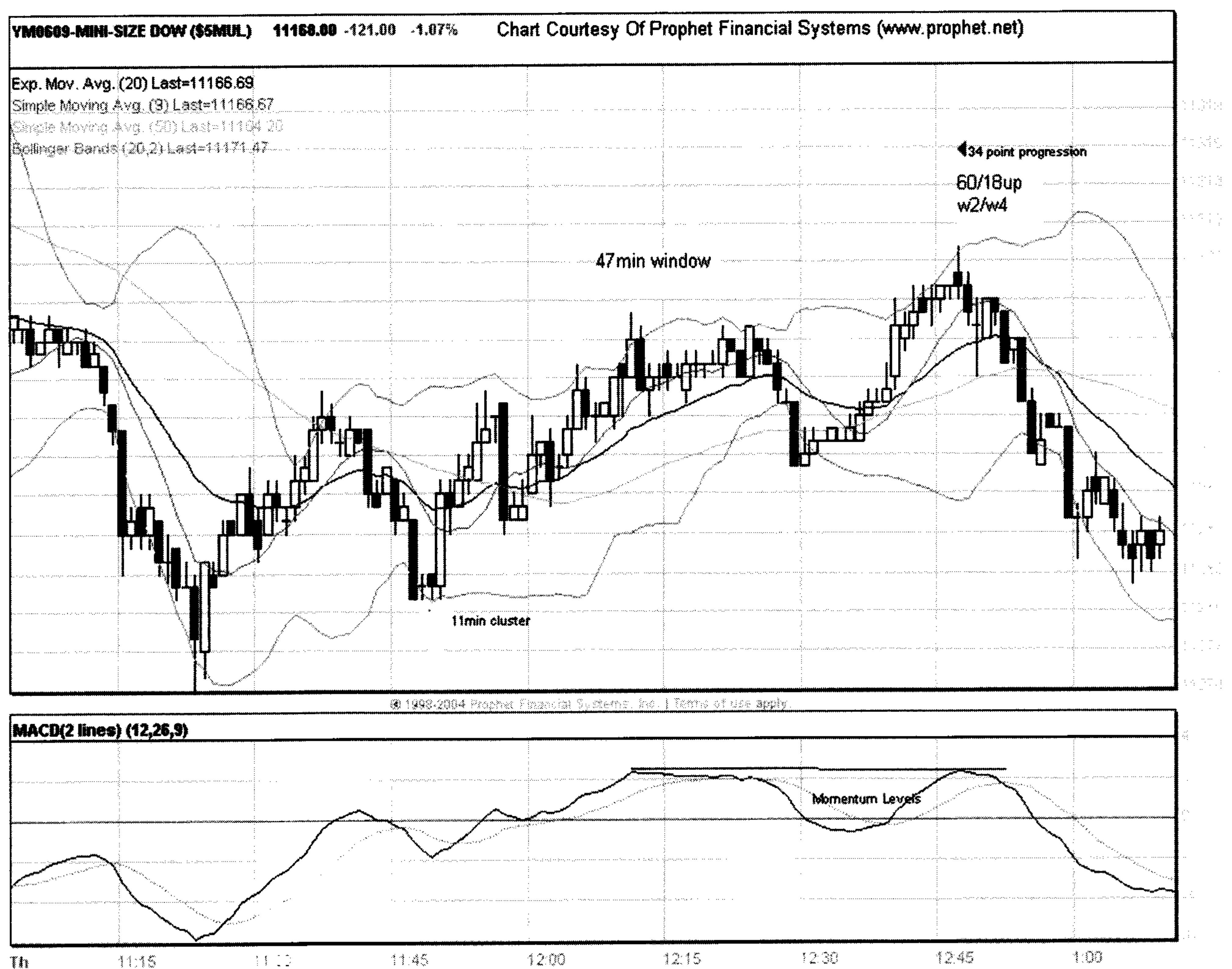
You can see the same principles work for the indices and currencies, as well as for individual stocks. The only adjustments are on the intraday scale where we count the individual bars of the final leg to the sequence. By the way, this chart proceeds to take out the prior high seen a week earlier at 75.

## One Minute Dow E-mini

As discussed in an earlier section, the truest form of understanding internals of the market is using 1-minute charts. There isn't a faster way to

**Figure 5.13**

Dow e-mini, MACD  
levels off, one min

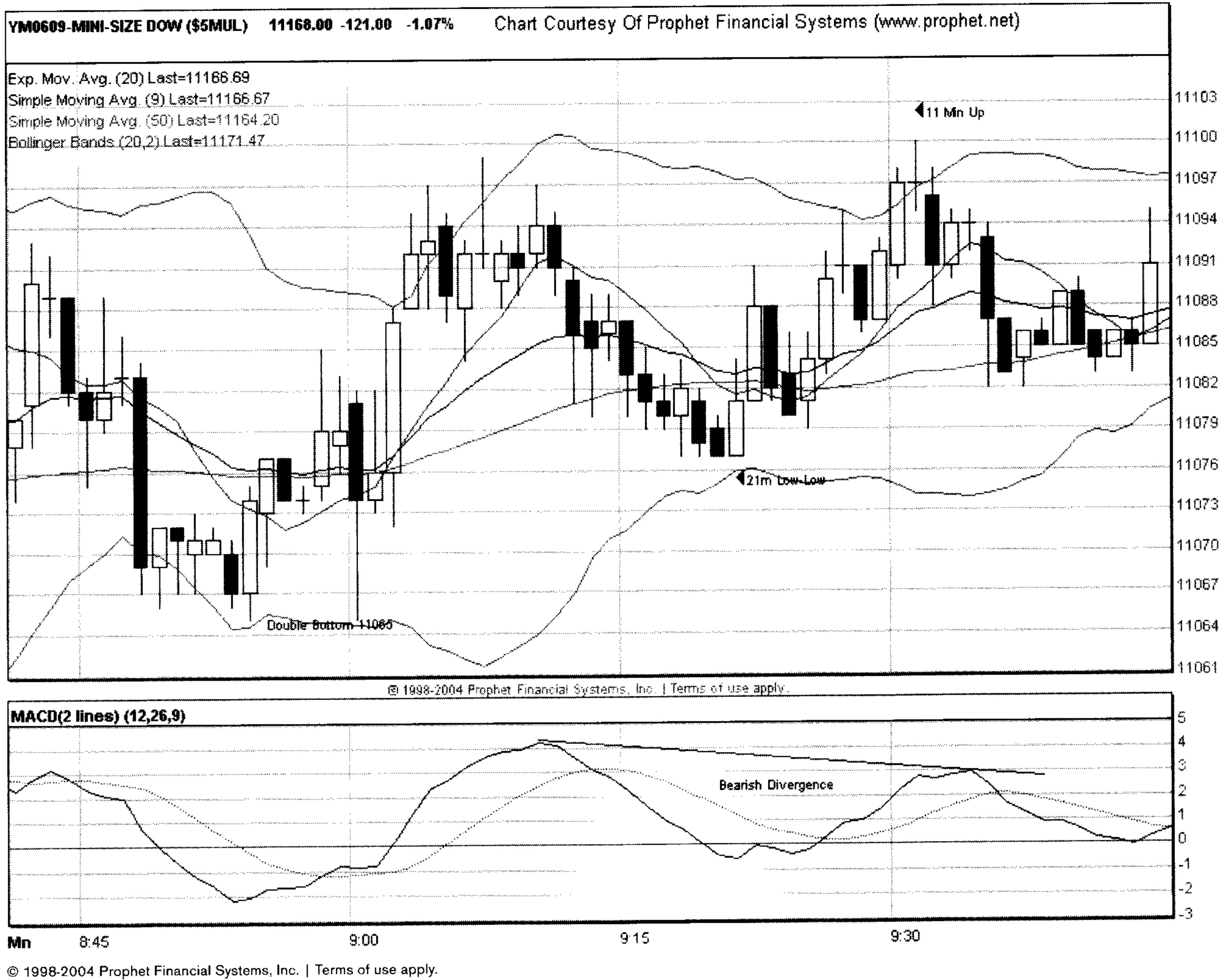




make money in the whole industry, and it suits those of you who demand instant gratification. In choppy environments, a day's worth of action can give you complete bull or bear markets.

The following progression of the 1-minute Dow E-mini does not give you a big divergence, but exhibits a new price high where the MACD just levels off. As you can see, the 1-minute world is not very different from the other time frames. These 1-minute charts give you a good idea of market precision, but the moving averages will be hit or miss. The MACD divergences, however, are right on the money. The second leg clusters on a 24-minute (23 + 1), low-to-low cycle with an 11–13 minute correction. The third wave high is 47 minutes off the low. As we take out that high, it

**Figure 5.14**  
Dow e-mini, true divergence as  
opposed to leveling off, one min



becomes apparent the MACD isn't going along for the ride. The final leg is up 18 minutes, and it does cluster with 60 minutes off the secondary low (Figure 5.13).

We have another 1-minute Dow E-mini with a true divergence as opposed to a leveling off (Figure 5.14). In this instance, there is a double bottom at 11,065 that starts the move. This double bottom has its own bullish divergence to start near 9:00. When you see a double top/bottom, there is a good chance to get a nice move in that particular time frame.

Figure 5.14 also exhibits many of the characteristics we've discussed. We have a 21-minute, low-to-low cycle off the second tail of the double bottom. The white candle is our signal the move is about to go higher. The white candle forms a cluster because the turn is also 13 minutes down. You can't take the candles as seriously on a 1-minute chart as the larger time frames, but they still work. This sequence finally comes to an end when we get a nice looking doji bar as part of an evening star because MACD does not confirm the higher high. This final leg does not cluster as nicely as the prior chart, but it still reverses after 11 minutes.

Notice on both of these 1-minute charts how price action reacts to the Bollinger bands. The 1-minute cycle progresses from one end of the bands to the other, and when it punctures the band, it reverts back to the mean. When it punctures the bands on a time bar, we have a very good chance for a reversal.

The next chart of the Dow E-mini (Figure 5.15) highlights the challenges we've discussed throughout this chapter. For any particular day, once a trend starts rolling it is not wise to go against it. In a strongly trending day, there will not even be a good divergence on the 1-minute chart. If there is going to be a turn, the first divergence that will show up will be on the 1-minute basis. If you are looking for a reversal and want to see one show up at least on the 5-minute scale, it's wise to see if one is developing on the 1-minute scale first. If it isn't, it's best just to go with the flow.

In this example, we have a downtrend that lasts almost four hours. Just like other charts, we have a chart that has its fair share of good time relationships. At least on the 1-minute basis, the 9-period moving average seems to work best, and due to the choppy nature of this time frame, moving averages are not very reliable unless we get into a strongly trend-

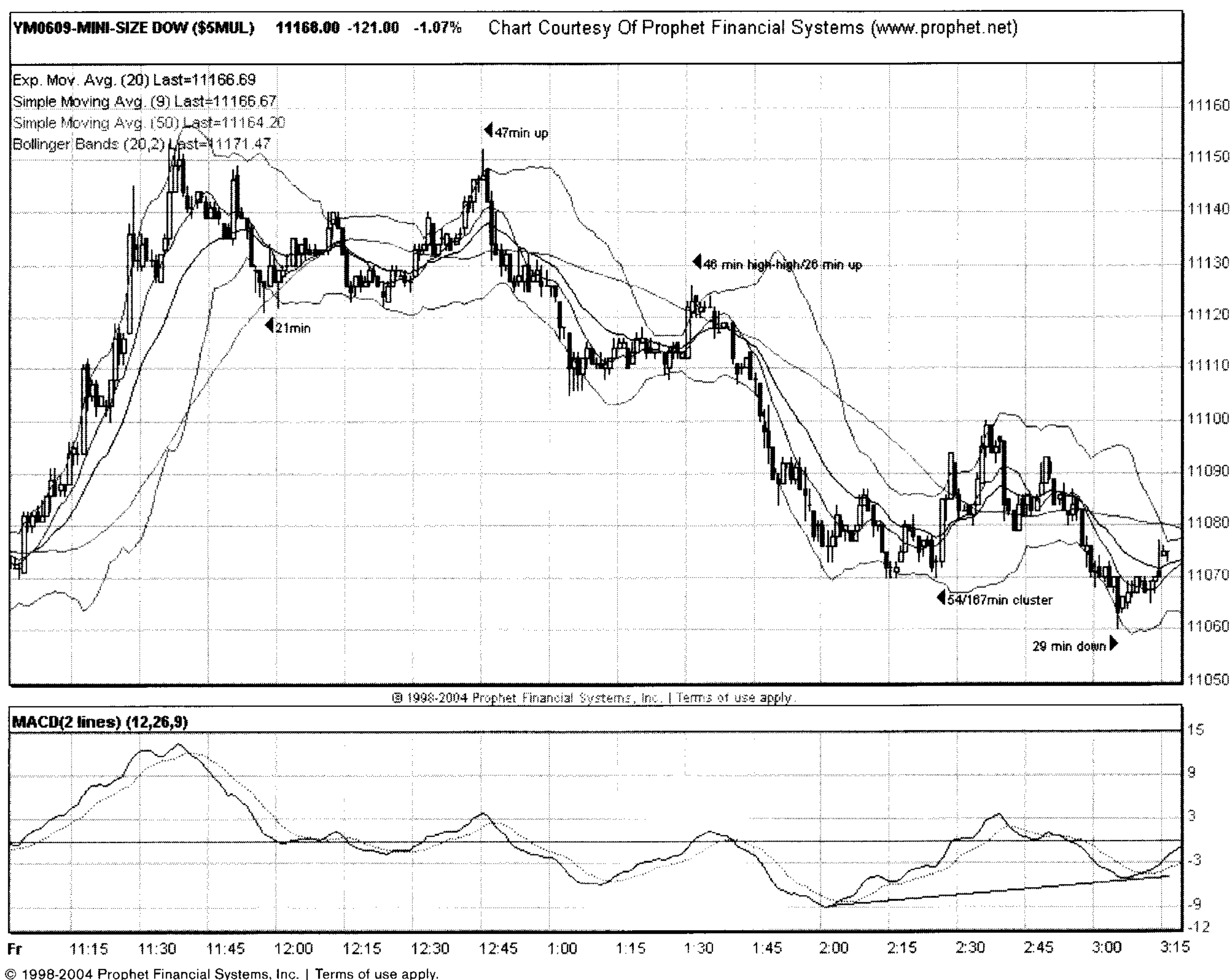


ing leg. The first progression is a 21-minute wave, which is followed by a 47-minute correction. The 47-minute high bar reverses on a good evening star or bearish engulfing bar. This is a good failure at resistance and starts a nice 80-point drop. Along the way, we have another 46-minute, high-to-high failure cycle that clusters with a 26-minute correction.

There is another concept that is a tendency but not a fast and hard rule: it is the relationship between corrective waves within the larger trend. I don't pay a lot of attention to it because it creates too much thinking, but if it's there, you have yet another piece to the puzzle for a high-probability trade. In this case, we have 47-minute and 26-minute corrective waves. Do the math and you'll find that 26 is 55 percent of 47. One retracement

**Figure 5.15**

Dow E-mini, strong trending days, one min



ment leg is a Fibonacci relationship of another. It takes only a few seconds to punch a couple of buttons on a calculator. I wouldn't avoid taking the trade if a relationship isn't there, but if the bars line up and the corrections have a Lucas or Fibonacci relationship to each other, you have a high-probability winner.

As we continue south with this leg, bearish momentum peaks just past 2:00 when we get our last retracement up leg. We finally get a divergence after 3:00 as we take out the low, but MACD does not confirm. The whole leg ends when the final wave totals 29 minutes.

What do you think the bias would be for the next trading day? Chances are the next morning sentiment will be really negative as the "dumb" money would anticipate a continuation of the trend. I'm not suggesting to you that trends change from one day to the next. They don't. However, when we finally get divergences on a 1-minute chart the way we just did, odds are we get at least a continuation in the opposite direction for a good portion of the next trading day. What did happen the next day? For that answer, check out Figure 5.14 with the double low at 11,065. The next day was choppy, and at least half the session was a retracement back up to 11,100. This implies we did get a follow through on the divergence for part of the day, but keep in mind that this is a very small time frame (1-minute divergence). From 11,100, price action did collapse one more time taking out the low, but rebounded to 11,135 in one of those roller-coaster days to retrace the wave down almost totally. This part is not shown in Figure 5.14.

The MACD is one of the most reliable momentum indicators, but by no means the only one. You can apply the same principles to stochastic, true strength, or RSI.

A discussion on divergences wouldn't be complete without mentioning when you shouldn't expect to see them. Momentum indicators measure the strength of the trend to various degrees. It is common sense to realize they work in trending markets. If we are not in a trending market, we shouldn't expect to see divergences. We've covered sideways markets here, and the only time

### Trader Tip

The best way to avoid acting prematurely is to wait for those divergences to play out. The other consideration is to recognize moving averages; and as long as price action is trading above the moving average, don't think about going short unless you get a good time cluster.

you shouldn't expect a divergence is in a sideways market. When we have a sideways market, we are going to rely more closely on the bar count of individual waves as well as the high-to-high or low-to-low progression.

If you don't like sideways markets, the solution is to shorten your time frame. You can always find a bull or bear market even when the market is going sideways. If you scale down to a 1-minute chart, you will almost always have divergences to tell you when a trend (even if it is only 21 minutes) is going to change.

As you can see, the best way to avoid acting prematurely is to wait for those divergences to play out. The other consideration is to recognize moving averages; and as long as price action is trading above the moving average, don't think about going short unless you get a good time cluster. It takes patience to wait out a trend, especially during the later stages when the bars appear to labor higher, and you think you've caught a top or bottom. From my own experience, nothing bleeds an account more than being quick on the trigger. Remember, trends last longer than most of us realize.

Think of yourself as a quarterback with stop outs being the equivalent of throwing an interception. The best quarterbacks will still throw interceptions, but they keep them to a minimum. As we mentioned earlier, in the NFL, quarterbacks are taught to throw the ball to the sidelines if the receivers are not open. Here I'm advocating you stay on the sidelines until you see a setup that replicates a high probability situation (like those found in this book).

# 6 | VOLUME STUDIES, MOVING AVERAGES, AND THE TIME ELEMENT

I believe the most useful aspect of the time factor is that anyone can use it. Regardless of whether it is based on Fibonacci or Lucas, technicians from other disciplines can apply it just like anyone else. The rest of the technical analysis community looks at Elliott as a subjective methodology. I've proven within these pages they are indeed correct. I've also shown you many different ways of eliminating much of the subjectivity of Elliott.

However, no matter how much you eliminate the subjectivity of Elliott, there is an element of technicians who either don't understand or don't want to understand anything concerning the waves. I can't blame them because it takes years to learn Elliott properly. The goal of this book is to make you exponentially better at your own method in the shortest time possible.

That being said, there is a large contingent of technicians and traders that follows the William O'Neil method of technical analysis. I consider O'Neil to be one of the great innovators and technicians of the 20th century. I cut my own teeth in this industry on the *Investors Business Daily*. O'Neil has taken a lot of people who knew nothing about the stock market and



taught them a methodology that works. In this chapter, we are not going to pursue his relative strength rankings of stocks or industries. It does not really apply to what we are doing here. If you want to know which stocks or industries are outperforming the market, all you need to do is run up to the corner to get yourself a copy of the IBD. In this chapter, we will add to his existing methodologies.

The O'Neil philosophy encompasses picking strong companies with tight technical patterns. They rely heavily on pattern recognition highlighted by reliable patterns such as cup and handles (O'Neil 1995, 160–179). They also rely on good volume patterns and moving averages. These are all sound fundamental tenets of technical analysis. By adding the time factor, we are taking the O'Neil methodology into the 21st century. Just like the last chapter on divergences, we are attempting to reduce the number of times you are stopped out of positions by making a good methodology even better.

The IBD stresses the importance of the 200-day simple moving average. Many traders and money managers also add the 50-day simple moving average to their repertoire. Gary Kaltbaum has a nationally syndicated radio show and considers himself to be an O'Neil disciple. He considers the 50- and 200-day moving averages to be key gauges of whether a trend has changed (O'Neil 1995, 55). Shorter-term traders rely on the 20-period moving average. Elliotticians believe these moving averages are just lines on a chart. However, the big money crowd and the trend followers use them religiously. I've often observed that when one of these moving averages happens to line up with a Fibonacci retracement point, that there is a good place for price action to hold the line. However, this chapter is devoted to people who are not familiar with Fibonacci retracement lines and couldn't care less. Consequently, you won't see any Fibonacci price retracements in these examples.

## MOVING AVERAGES AND TIME CLUSTERS

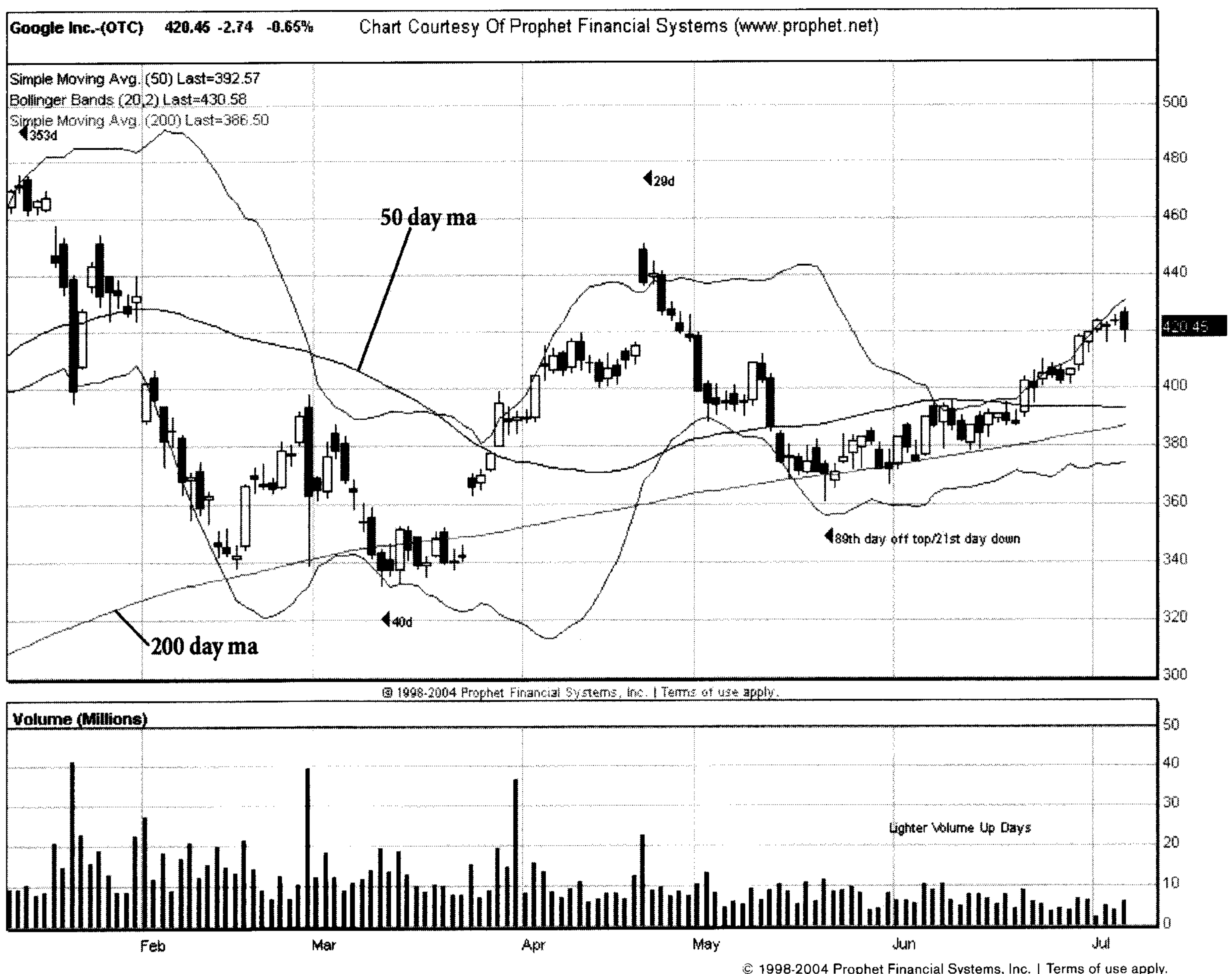
When we start a new bear trend, one of the key challenges is what will happen when we get to the 50- or 200-day average. Is it going to hold the line or not?

Figure 6.1 shows a 7-month progression off the top in Google (GOOG). So far, we've had a 40-day progression off the top and a 29-day retest of the high that failed. In May, we are trying to ascertain whether the 200-day moving average is going to hold. Up to this point, the 50-day moving average has behaved like Jell-O. On the first trip down, the 200 day was taken out slightly. The second time down, the line was tested again and held on the cluster of the 89th day off the top combined with 21 days down off the secondary high.

We can also see that on the move up in June, volume seems to be lighter than it was on the first leg down. It looks like buying volume is beginning to dry up (174). Great! That tells us that likely, we are not at the early stages of a new leg up, at least not here. But we've also gone up 60 points,

**Figure 6.1**

7 month progression off the top in GOOG



and it's not a good time to be short. When do we want to get short? Be patient and wait for the time reversal. The current trend off the May low is 32 days up, 122 days off the top, and 54 days on a high-to-high cycle off the last test of resistance.

It would seem like we are getting close to a reversal. It could happen on the next bar as we would be 33 days off the last low (Fibonacci 34-1), 123 day window (Lucas) off the top, and 55 days on the money off the last high. One of two things is bound to happen. We will get our reversal on this triple cluster: a high-probability outcome. The other possibility is that if the market were to choose to ignore this excellent cluster, it would be a very bullish sign—a chart that ignores such a chance for a reversal is try-

**Figure 6.2**

GOOG a few days later from 6.1





ing to tell us something. The market needs to elect this cluster as a turning point. If it's going to reverse, it has to be here. If we get a bearish candle with this setup, we have a high-probability winner.

Here's the chart just a few days later (Figure 6.2). It topped right in the area we anticipated. The best part of this situation, and what gives this methodology so much promise, is that we anticipated the turn days ahead of time. It actually topped a day early from an ideal 34/55/123 day cluster—as you can see on the chart, the top was the 33/54/122 day cluster. It started turning down exactly at the time it was supposed to.

This time I am going to show you the scaled down hourly chart (Figure 6.3) so you can see the candle and bearish divergence situation going on

**Figure 6.3**  
Hourly chart of GOOG





at the time. The daily chart doesn't give you the cleanest reversal signal because the top is created by a doji and black candle that closes below the doji. There is no clear signal this was pulling away from the high and it took nearly five days to confirm. However, when we scale down to the hourly time frame, the situation is very clear. The two hourly bars at the top are creating a dark cloud cover situation at the same time that we get the bearish divergence on the MACD. What else? From the congestion zone low at 401–402 to the top, the final leg completes in exactly 46 hours. When we put all of this together, we have a turn in four degrees of trend. First, there is a cluster of three daily relationships plus the hourly turns at exactly the right moment.

## ADDING VOLUME TO THE MIX

Let's take a closer look at volume's role. Figure 6.4 is a daily chart of Intel (INTC) at the end of the 2002 bear market. There are a few key points on this chart. Notice the huge buying volume within days of the bottom. A nonscientific look at this chart suggests average daily volume to be around 60–65 millions shares a day. The big day is almost 3x the average daily volume. This kicks off the new uptrend.

We have an uptrend that runs its course on the 38th day, which is the exact day it hits the 200-day moving average. At that point, we get a good bearish candle formation. Here we have a cluster of three reasons to go short. First, there is the 38-day cycle. Second, it reverses right at the 200-day moving average. Third, you can also make out five waves to the upside. Recall sentiment at this time was very negative, and at some point, we would anticipate a retest of the low. We discussed in Chapter 1 what happens during retests of the low waves. The sentiment after the December high was, "Here we go again: we will likely set a new price low not only in Intel but also in every situation."

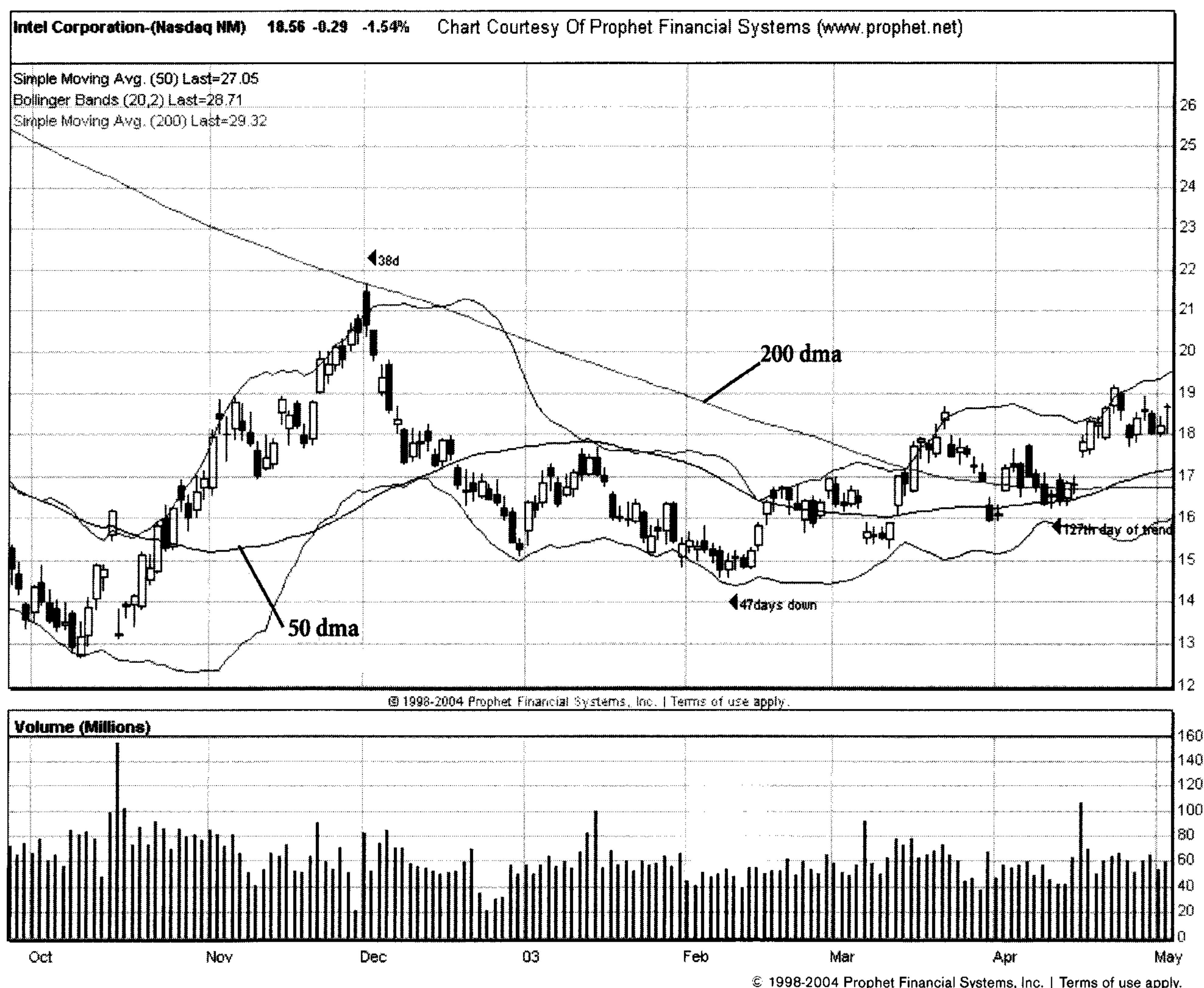
The retest of the low continued into February and ended on the 47th day of the trend. If you continued to stay short and held on for another 21 days, you didn't get hurt too badly, but the 22nd day was about the time the market took off for good. On the 23rd day off the February low, we gapped up with a nice white candle after leaving a higher low for the first time in a long time. And, I couldn't call this setup a cup-and-handle pattern for several reasons, but the best one is selling volume really doesn't

dry up to any degree in that 47-day retest of the low. It took a contrarian to go long at this stage of the game.

However, those who follow this methodology stress moving average cross-overs. Here we have a big one in April, and our timing model beats it to the punch. Many traders will use the 50-/200-day crossover as their buy signal, and that's fine. What confirms the technical situation is the gap up that occurs 4 days after the important 127th day of the new trend off the October low. If we were going to drop, that would have been a good time for it. Observe how price action touches the 50-day moving average on the 126–127 bar cycle and holds the line. Within a week, we get that crossover suggesting being long might not be a bad idea. Everything

**Figure 6.4**

Daily Intel (INTC) beats moving  
avgs at end of the 2002 bear



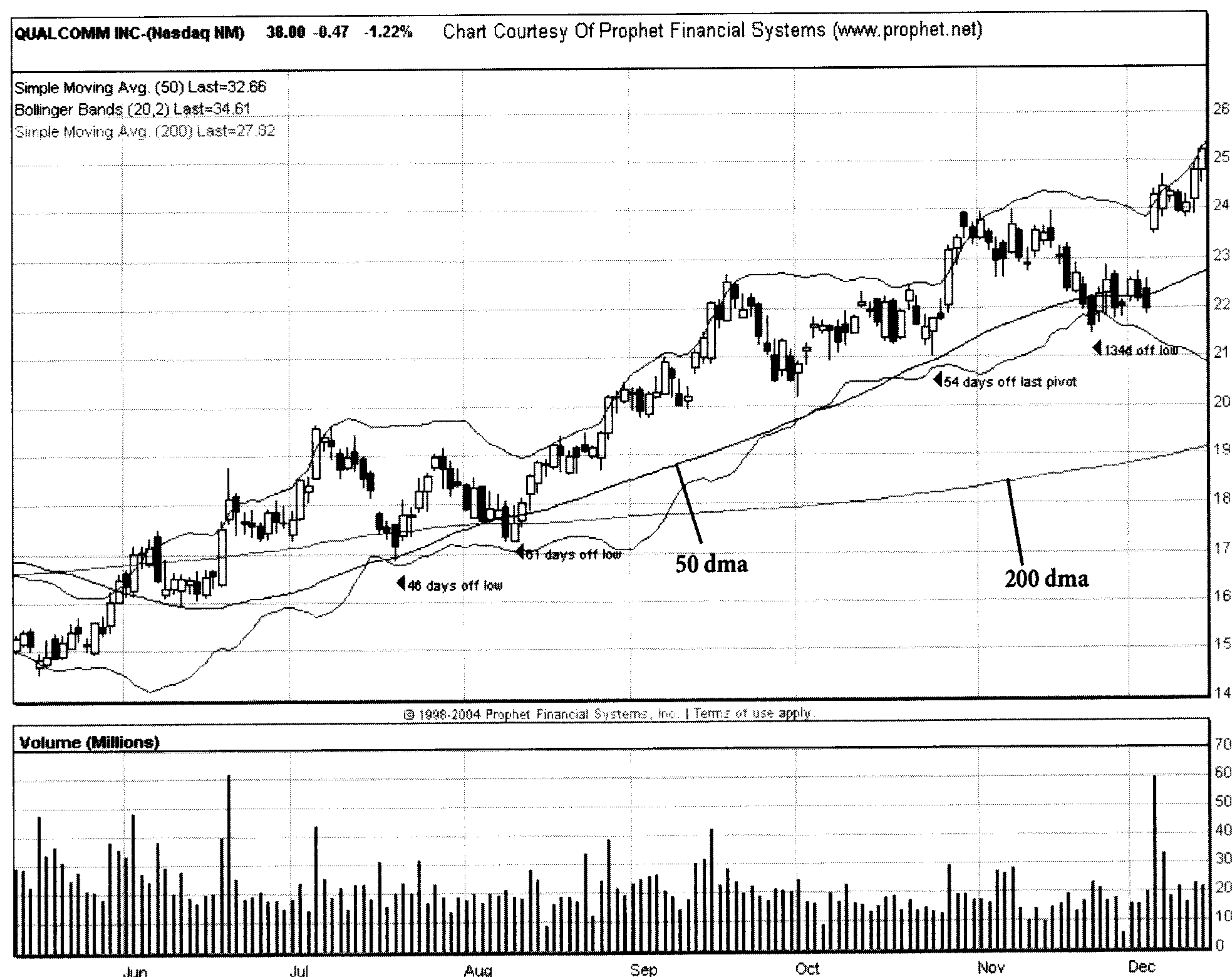
points to a change in trend, and our timing model confirms it, if for no other reason than by default. Our 127-day time window beats the gap and the crossover.

## TRACKING BULL TO BEAR

The moving average methodology considers a trend will stray from the mean to the upside but eventually will revert back to the mean, and for large cap stocks, this means a retracement back to the 50-day moving average. The 50-day moving average seems to work best in stronger relative strength stocks. However, in the universe of stocks, reality suggests mov-

**Figure 6.5**

QCOM Moving Average





ing averages are going to be violated more often. Like the U.S. Constitution, we need a checks-and-balances system to confirm the trend is still intact. The time factor does an excellent job for us. Figure 6.5 is a chart off the secondary low back in 2003 for Qualcomm (QCOM).

The first real pullback and test of the 50-day moving average ends on a 46-day, low-to-low cycle. From the chapter on rotation, we can now recognize that this might be a good time for entering or adding to positions. The moving average crowd might consider buying at this point without knowing the time dimension. That's fine, but what's wrong with having a check and balance?

As you can see, the next pullback not only violates the 50-day average, but also the 200-day average. If you've been following the lessons here, you now know that a 61-day, low-to-low cycle that puts in a white candle and turns back up is a high-probability pattern recognition scheme, whether we are following moving averages or not. On day 61, the chart closes right on the 200-day moving average. I suggest allowing the two methodologies to work together. Price action does fall below both moving averages temporarily. Here we have the good fortune to look at this chart in hindsight. In real time, you won't be so lucky.

What happens in stronger trending stocks is price action will reverse near one of these moving averages on an important time bar. When the moving average and time bar cluster together, you have a much stronger combination. The challenge is for stocks that are not as powerful. They will tend to violate the moving average yet reverse on the correct time bar. In this case, price action explodes to the upside once again, and the 50-day line is not tested again until we make another 54-day rotation off the 61st bar of the move. We violate the 50-day average again just below price point 22, but we are bailed out by the time cycles right on the 134-day bar off the low.

To make a long story short, this chart ends up going much higher as does the rest of the market. However, nothing lasts forever. The next chart (Figure 6.6) shows what happened later near the end of the move at the top. As you can see, we finally get a bearish

### Trader Tip

What happens in stronger trending stocks is price action will reverse near one of these moving averages on an important time bar. When the moving average and time bar cluster together, you have a much stronger combination.



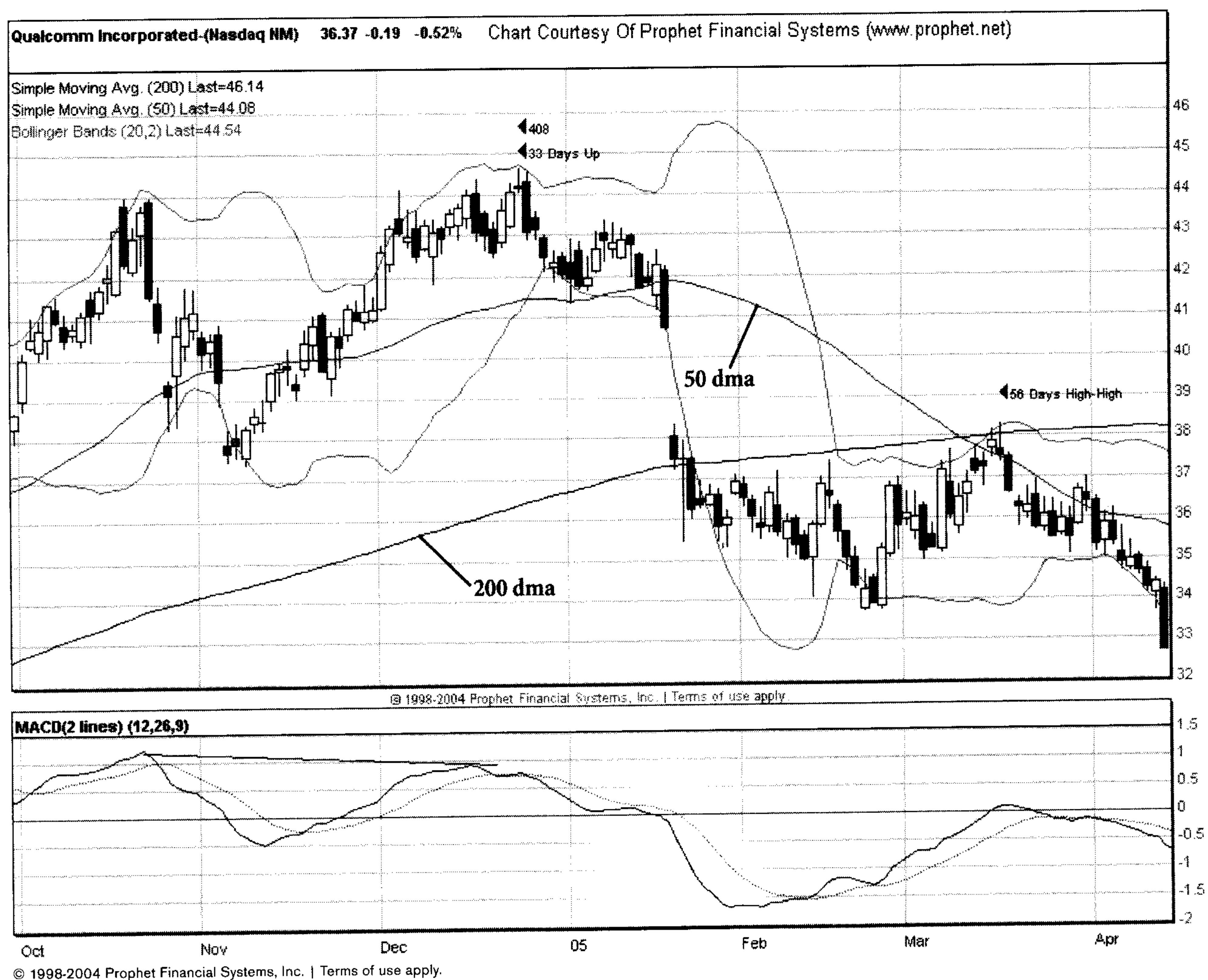
divergence on the daily time frame, but it does not cash in until the final leg hits 33 days. At that point, we get a perfect evening-star pattern and the trend changes. Now let's track the downtrend.

After the gap down, we slip below both the 50- and the 200-day moving averages. What we are looking for is a bounce up to the moving average territory with a potential for failure so we can short the rally.

The question is where and when the price action will top. It could choose to top exactly on the 50- or the 200-day average. The answer is it chooses to top in the general price target, but not until it hits the time cluster of 56 days, high-to-high and 16 days up to the bounce. In addition, it tops exactly at the bottom of the gap down in January, which is acting as very strong resistance. In this case, I would say you have four excellent reasons

**Figure 6.6**

QCOM Failure At Moving Avg and Cycles



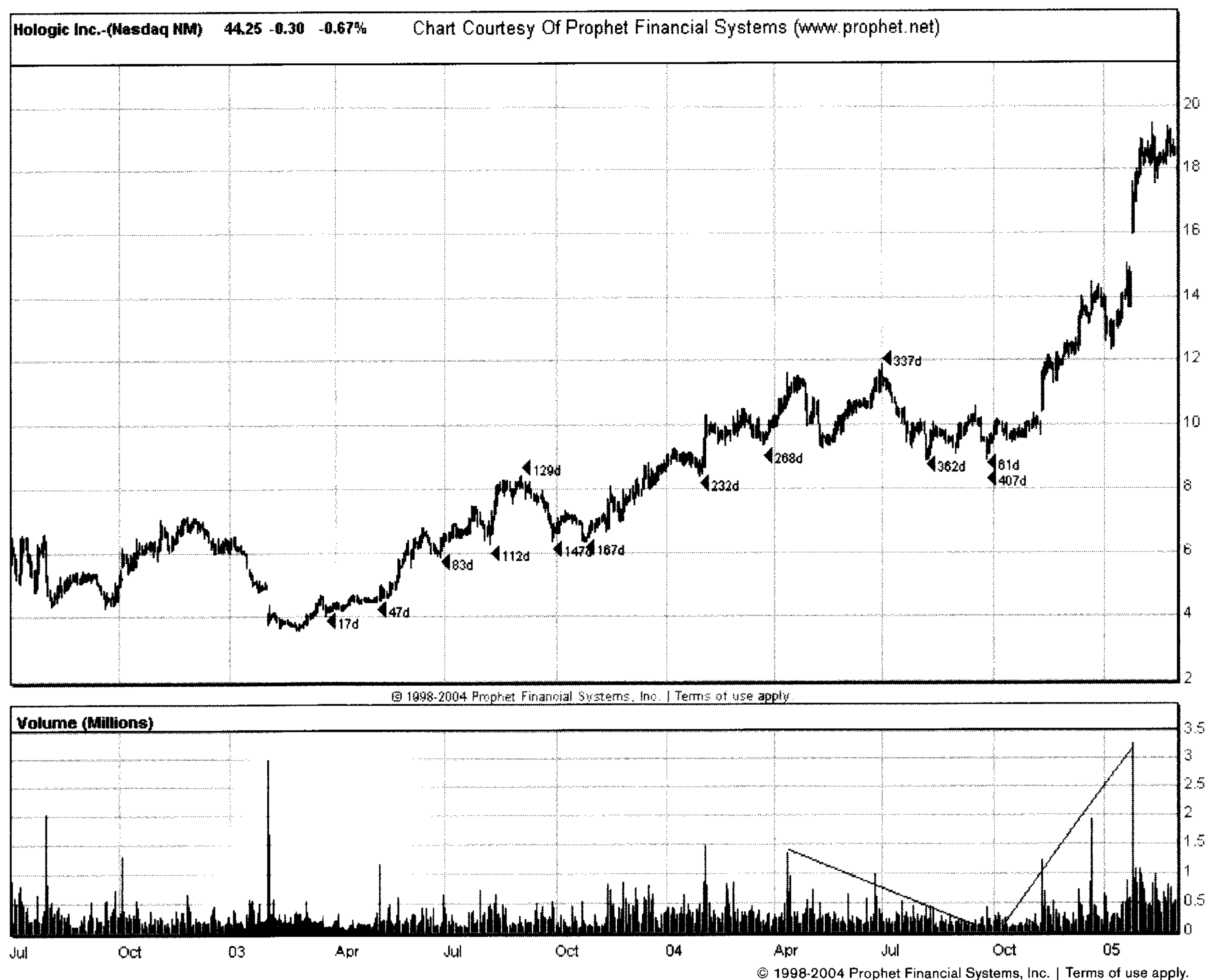
for a reversal right there: the two moving averages, the resistance line created by the gap down, and finally, the time factor.

## TIMING CUP AND HANDLE PATTERNS

I am in agreement with the O'Neil philosophy in that we are both keen fans of excellent pattern recognition systems (O'Neil 1995, 160–179). The cup-and-handle pattern is nothing more than a tight move off a low followed by a benign retracement that can also be characterized as a tight base building period. The best handles are bases that move down slowly on declining volume. As volume dries, which implies an absence of sellers, the chart explodes to the upside. I'm not here to give you an education on cup-and-handle patterns or claim to be the definitive expert on the

**Figure 6.7**

Hologic complete 2 year progression



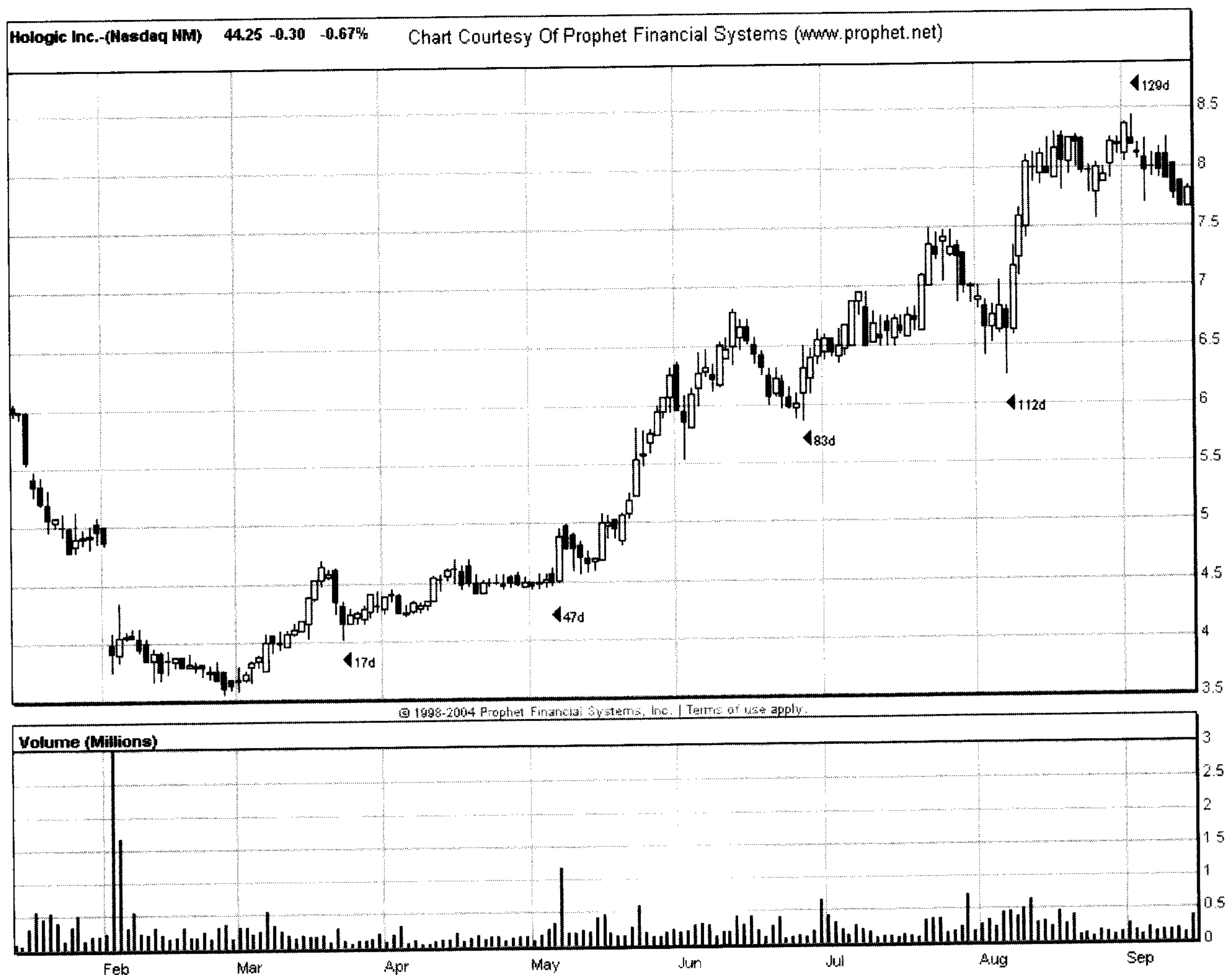
subject. What I am here to do is to show you how to take your cup-and-handle watch list and be ready for the most precise time to enter the trade. As we discussed before in this book, the best time to enter a trade is on conclusion of the B or second wave position because the biggest move is then directly in front of you. The cup generally is wave 1 of the pattern and the handle is the B or second wave. Here we are combining the terminology for Elliotticians, Fibonacci traders, and the part of the trading community that subscribes to the *Investors Business Daily*.

## Hologic Inc. (HOLX)

The first case study is of the stock Hologic Inc. (HOLX). We have a complete two-year progression (Figure 6.7), which takes us from a price point

**Figure 6.8**

Hologic first part of the move



just under \$4 to over \$19 per share. The next two charts (Figures 6.8, 6.9) illustrate the cycle patterns from the inception. What you can glean from Figure 6.7 is a fairly tight move from 4 to 12 and a pullback back down to the 9 area on declining volume. This would be the cup and handle part of the pattern. In Elliott terms, this can also be considered waves 1–2. As you can see, the most exciting part of the move kicks in after the handle correction.

Figure 6.8 highlights the first part of the move off the bottom. Clearly illustrated is the first pullback, which completes on the 17th day, and as we hit Lucas 18, the chart never looks back. After another small base building period, which can also be interpreted as a smaller degree cup and handle, the chart takes off in earnest on the 47-day cycle as we've been discussing throughout this book in all degrees of trend. Between day 17 and day 47, we build a base on top of a base on relative light volume. This implies a base-building period right in the middle of filling the gap down at the beginning of February, which turns out to be the exhaustion gap. Notice how on day 48 we fill that gap and take off. *Investors Business Daily* people, note the big white candle. The next two pivots are on day 83 and day 112, which are approximately in a rotation of a 35-day, low-to-low cycle (off day 47) and followed by a 29-day (112–83), low-to-low cycle. This progression also tops in 129 days.

Figure 6.9 shows the larger handle area. The condition that stands out the most is the decline in average volume from April all the way to September. In Elliott terms, we have a typical ABC pullback that ends in a virtual double bottom. In wave terms, the leg that drops until the end of September is exactly .618 of the first A wave drop. In bull markets, the C wave in corrections typically completes in the shortest period of time. A bear phase does the opposite since the C wave would take the most time and would take up the most territory. This could even be considered a running correction because the second spike down at the end of September actually misses taking out the August low by 1 cent. In other words, this can be considered the best bullish setup you can get.

The idea of this chapter is to determine the most precise entry to a 5-month period of declining volume. The handle finally completes 61 days off the high and turns up on a good size white candle with a slight pickup in volume. As you can see, average daily volume increases until such time



as we get the gap in the heart of the parabolic move north. In review, we have a pullback on declining volume with a tight base where, in Elliott terms, C terminates at the earliest possible point at the .61 percent price relationship to the A wave. All we need is the time factor to tell us when to buy.

## IBD Case Studies: Keithley Instruments and Skechers

The next two stocks were regular features of *Investors Business Daily* in the early part of the decade. Each stock exhibits many if not all of the technical characteristics necessary for greatness. The moves are not as spectacular as many tech stocks of the NASDAQ bubble, but are more representative of a normal bull market.

**Figure 6.9**

Hologic, larger handle area



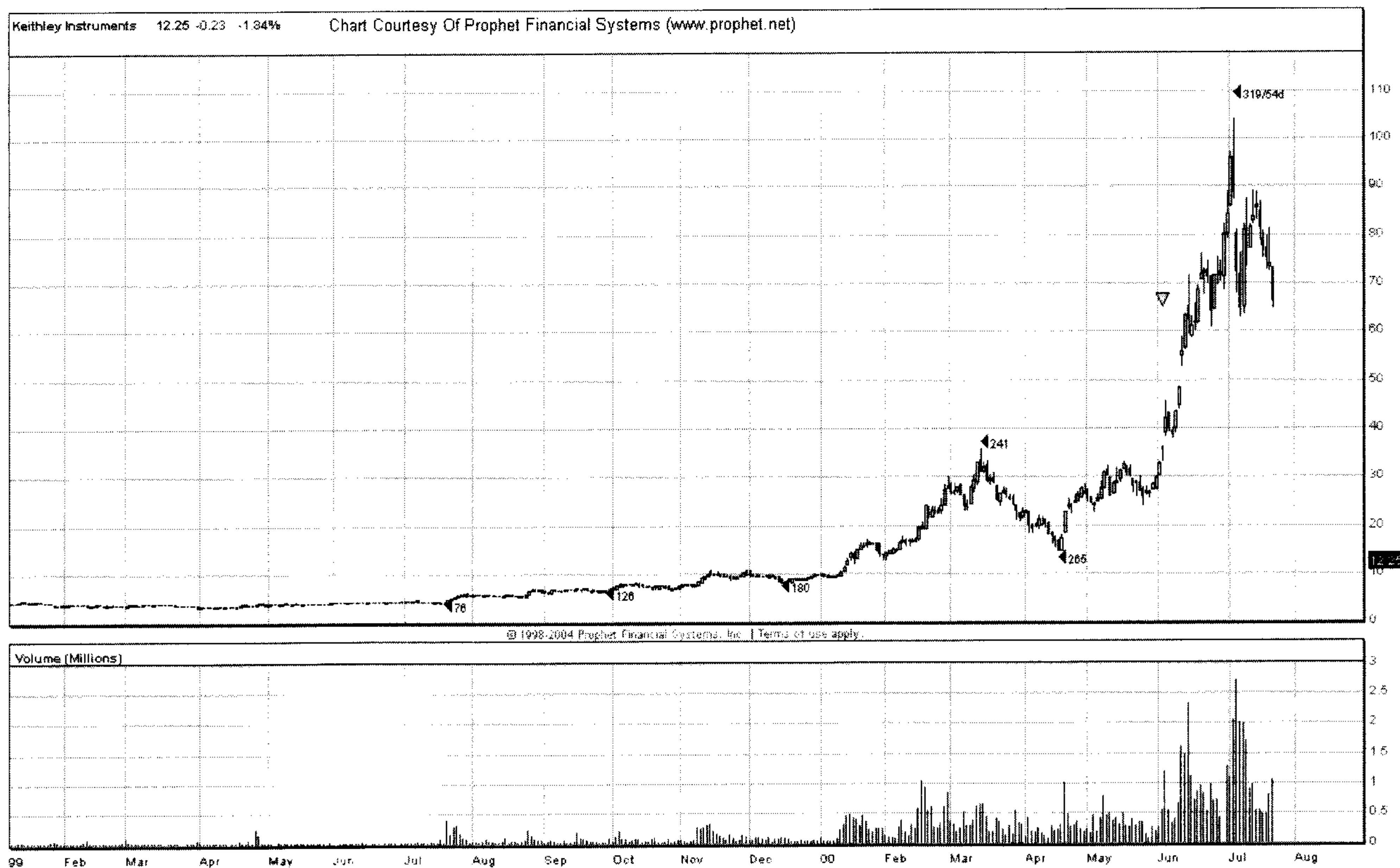
The first case study is the 1999–2000 moves by Keithley Instruments. Here is a company that went from penny status to over 100, and that included a 2-for-1 stock split along the way. I suppose many came to expect this type of performance based on the bubble years where a super bull market was mistaken for brains. However, one can do the right thing and get lucky every now and then. What is interesting about this stock is that the parabolic part of the move came after the markets made their historic peaks in January and March of 2000. Leaving many of the top NASDAQ names out of the discussion, Keithley has to be considered one of the best stocks ever featured in IBD.

When you look at the whole advance, what is lost in the discussion is the period right at the start where you can't really make out what is going on (Figure 6.10). Furthermore, when we zoom into the early phase of the action, we can see the distinct time cycles taking shape.

We pick up the action in July 2000 (Figure 6.11) after a long base-building process. Even on what is still considered a penny stock, the move-

**Figure 6.10**

Keithley Instruments, whole advance



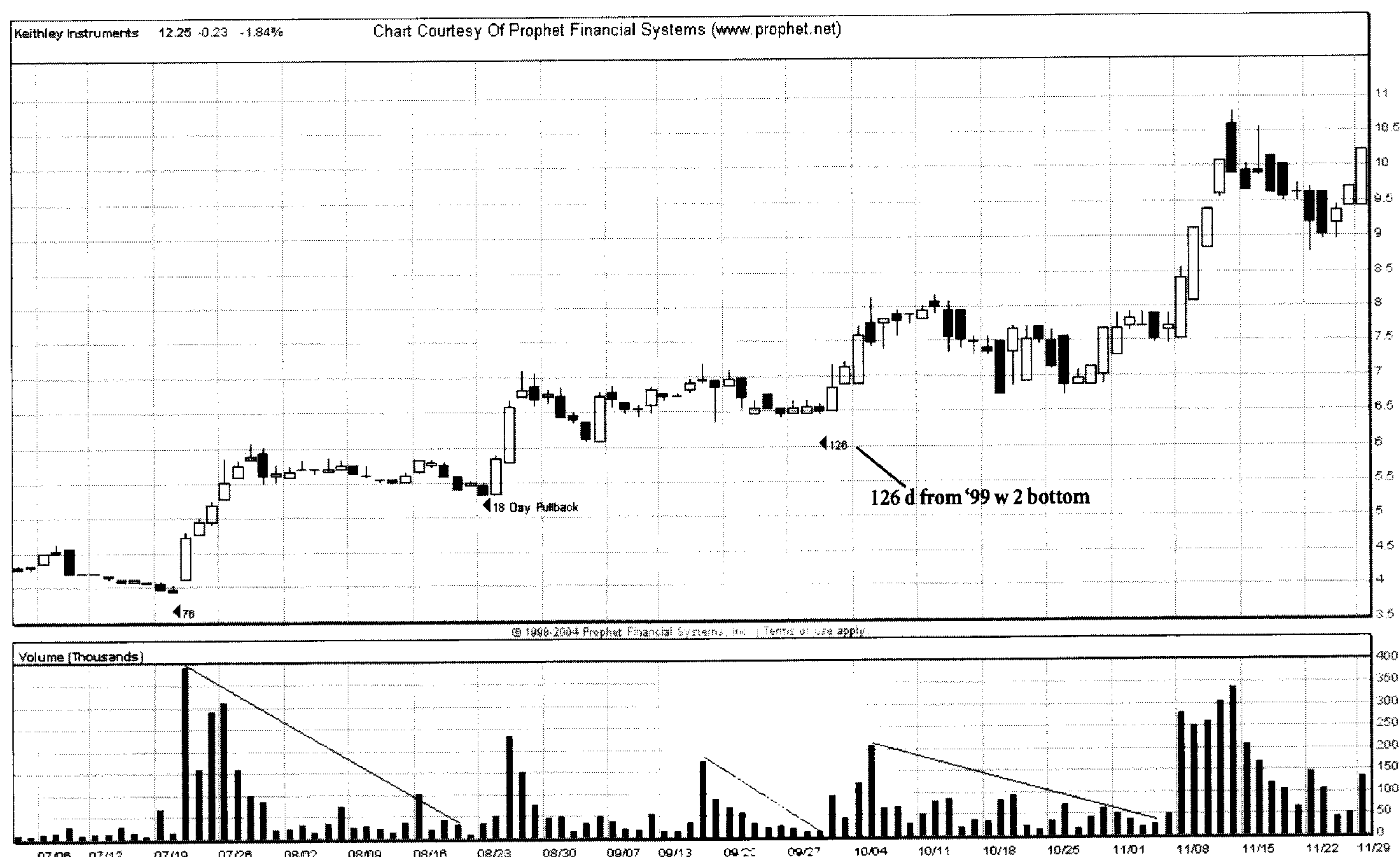
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ments are not random. What likely differentiates the time cycles from Elliott waves is that in lighter volume environments, it is very difficult to count good waves. As we can see here, we are still in a lighter volume environment, but the real move finally starts up as we complete the first Lucas 76 days off the April 1999 secondary low.

Elliotticians would call the move off the bottom a series of small-degree first and second waves. Volume enthusiasts would refer to this period as a series of small bases built on top of each other. What everyone must agree on is that each base is characterized by declining volume. I'll add to the mix that each base completes on some time cycle sequence. The first base, which leads up to the large white candles, completes in 18 days. The next base completes on the 126th day of the move off the April 1999 secondary low. The 127-day window is characterized by a sharp spike up in volume. The third base finds its low during the week of 10/18 on that large black candle on the 17th day off the last pivot low. It is a congestion period, and

**Figure 6.11**

Keithley Instruments, Close-up



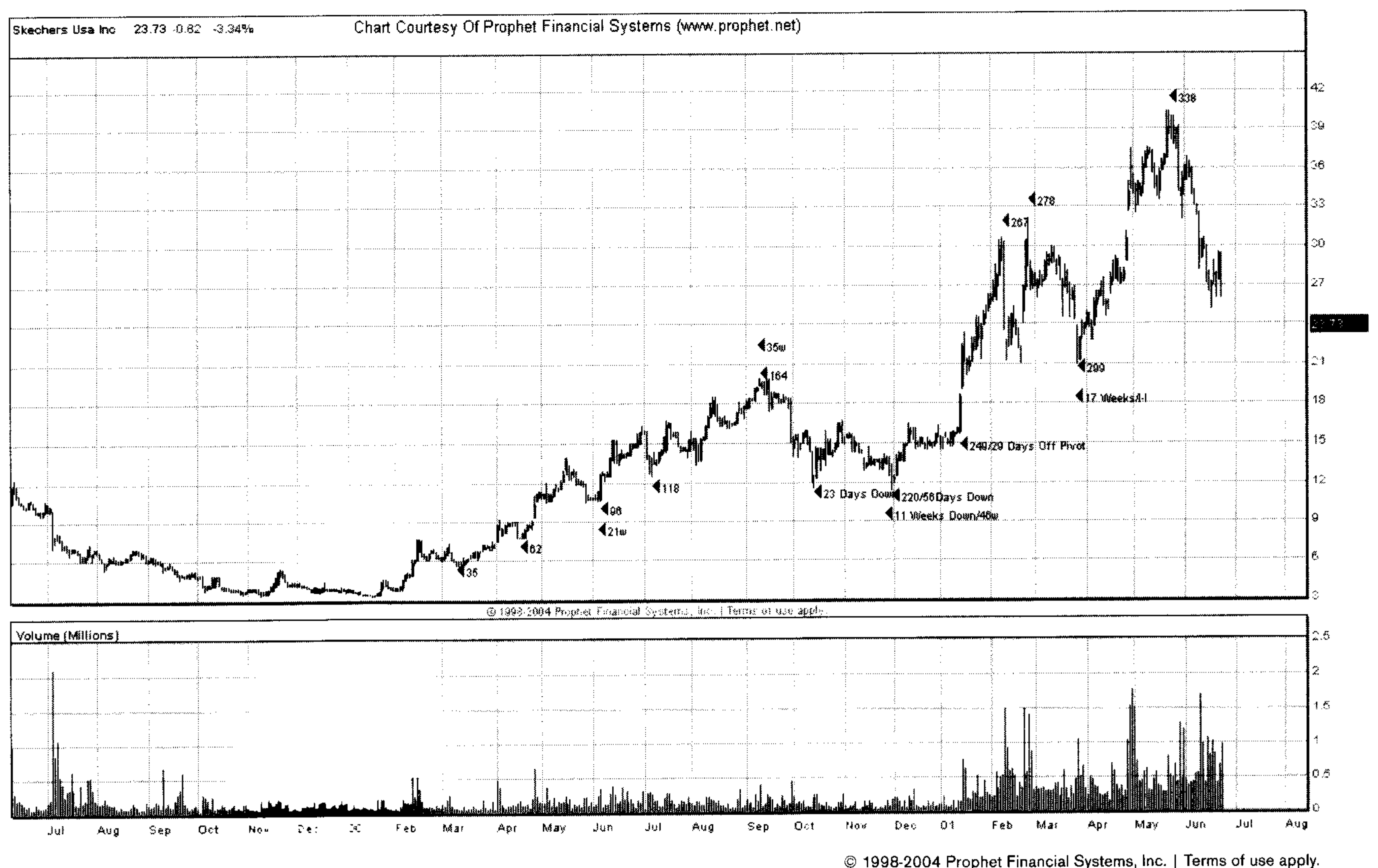
it isn't exactly clear what pushes the chart higher, but we do have a 3-day window from day 144 to day 147, where the chart finally achieves liftoff. Whatever the case, we never do come back down to touch the support area created on the 126- to 127-day windows.

If you look at the first chart of the entire move (Figure 6.10), you'll see three major pivots. The first one came in at 76 days; the next, at 126; and finally the last one, at 180 days. The 180th day can be interpreted as Lucas 18 times 10, but more important would be the difference between the 126th and 180th day, which implies a 54-day, low-to-low cycle. On the 55th day of the rotation off the 127-day cycle, Keithley starts a run that triples in value over the next 61 trading days. It pulls back for another 25 days, and on the 26th day goes parabolic until the 319th day of the move, which makes the parabolic wave exactly 54 days.

The final case study of this chapter first appeared in IBD, January 2001. Skechers came to prominence during the spring rally of 2001 when other

**Figure 6.12**

Skechers, whole progression on the daily





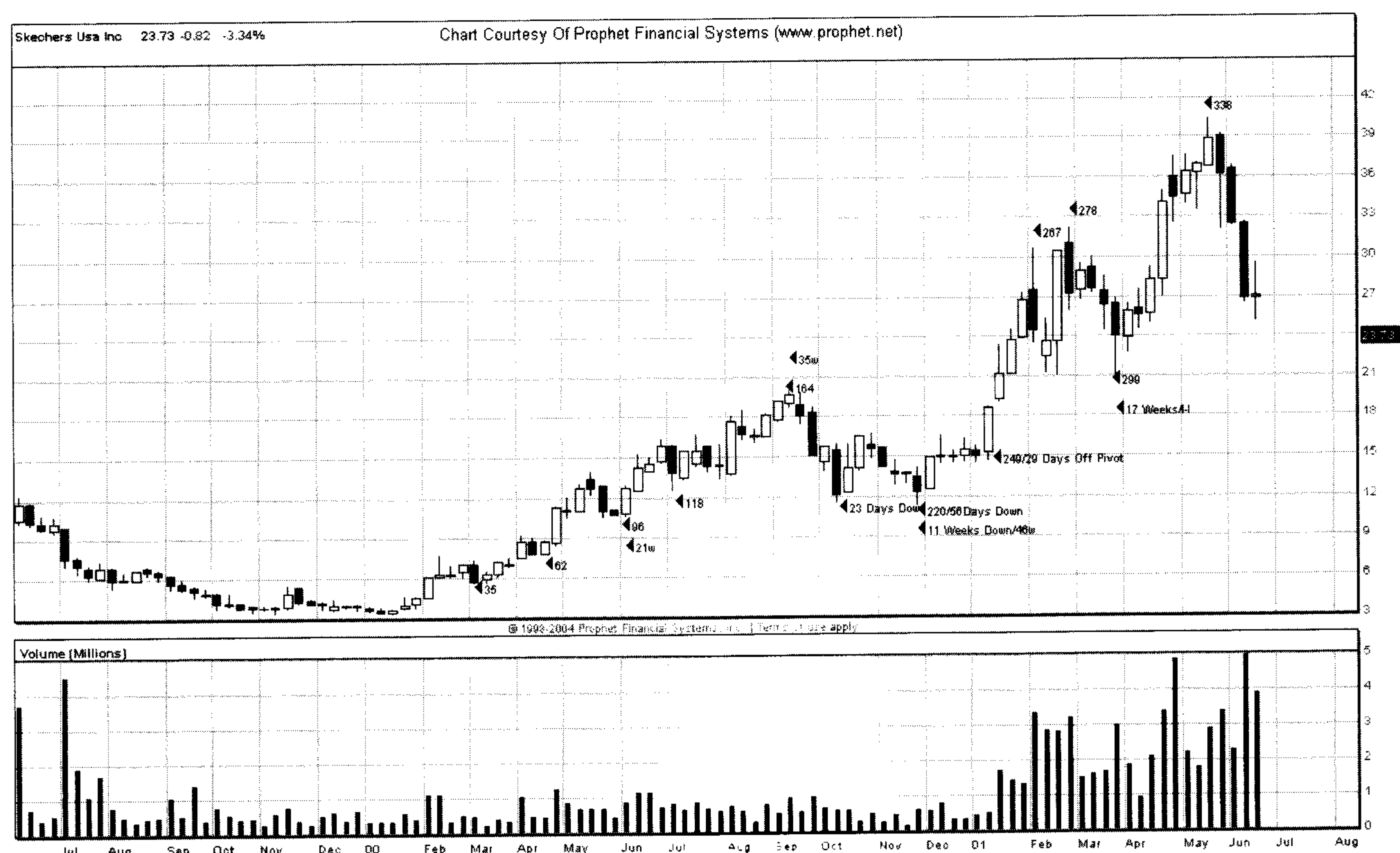
shoe companies were doing the same thing. I'm not big on fundamentals, but they did have a unique product that made sneakers and workout gear fashionable. I think that was the factor that caught the attention of investors. In any event, this was a case of another penny stock rising nearly 1300 percent!

The first two charts (Figures 6.12, 6.13) show the entire progression on a daily and weekly basis. The second, Figure 6.13, is the weekly chart with daily annotation superimposed. You can see how these two time frames cluster to create the various buy signals along the way.

Figures 6.12 and 6.13 exhibit bullish rotation as we hit important pivots on days 35, 62, and 96 (a 34-day, low-to-low cycle). The final pivot is on the 118th day, which is a common relationship. The 96th day corresponds to the 21-week, low-to-low cycle. This stock appeared in IBD, January 2001, just as it completed an 11-week pullback that clustered with the 46- to 47-week, low-to-low cycle.

**Figure 6.13**

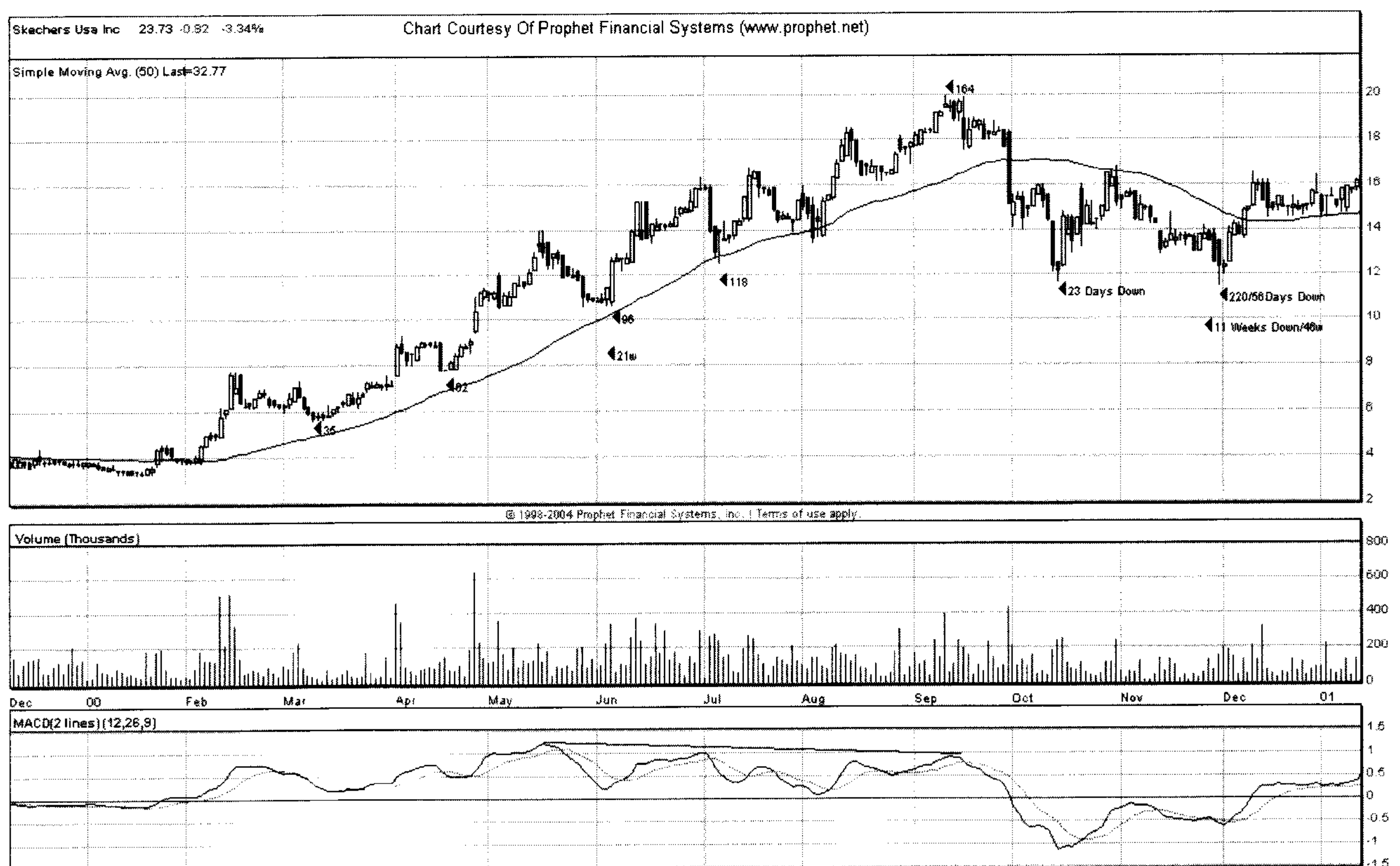
Skechers, whole progression  
on the weekly



The first half of the move (Figure 6.14) is when this stock was first featured to the public. On this chart, the 50-day moving average is incorporated to give you an idea of how to compare and contrast where the time bars turn in relation to the moving average. Different moving averages will net varying results. We had a 164-day leg where we were 46 days off the 118-day bar when a multi-month bearish divergence finally cashed in. The pullback is not a classic volume drying up sequence, but average volume did lighten until the stock found a bottom after a pullback of 56 days, which clustered with the 2 weekly time cycles (11/46). We have three really good clusters, and this caused the stock to go parabolic in the next few weeks. You can see from the weekly chart that volume went from under 1 million to over 3 million a week.

As we progressed off that low, we formed yet one more base that completed on the 29th day off the pivot (Figure 6.15), and the rest is history. The only thing I can add is that the final high is created when we get the

**Figure 6.14**  
Skechers, with 50 dma



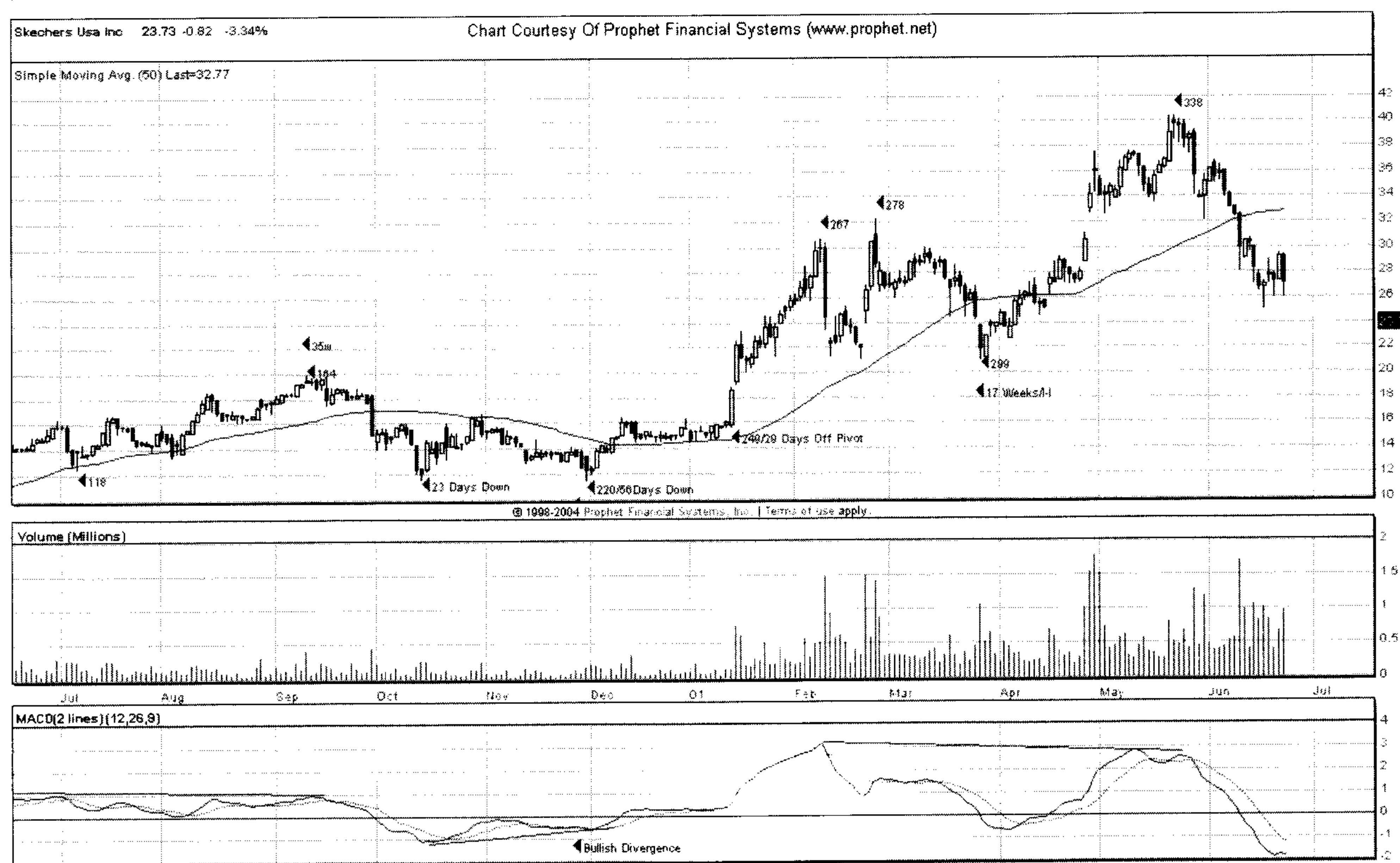
last bearish divergence, and it cashes in as the chart tops on the 39th day of the big wave or 338th day overall.

As we wind down this chapter, I want to make it obvious how anyone can use this methodology. It is not limited to those who understand Elliott waves. As a matter of fact, in the trading community, those who don't understand the waves outnumber those who do.

A large segment of the trading community uses the 50- and 200-period moving average. Another segment uses the 20 and 50. It is probably better to use the 20 if your time frame is smaller. But, the challenge is still the same. When you use moving averages, they are not always going to be lines in the sand. Only the strongest moves will validate them to the point where whipsaws are minimized. Moving averages do work best when they line up near a common Fibonacci retracement point. The problem is that many traders who use Fibonacci retracements pay no attention to moving averages. Conversely, many traders who use moving averages pay

**Figure 6.15**

Skechers 50dma II





little or no attention to common Fibonacci retracement points. I advocate that those of you who use moving averages and are being introduced to this methodology for the first time become aware of these tendencies. Sometimes the time bar will line up with the moving average, sometimes it won't.

The best setups happen when you get the time bar right on the moving average with a good candle reversal bar. This doesn't always happen. If we are pulling back into the moving average and fall short (or spiking in a bear phase) but we get the time bar, that's where the turn is going to be. If we are overshooting the moving average and reverse on the time bar, that's where the turn is going to be. Now you have another tool in your arsenal other than waiting for the moving average. Being aware of these tendencies will permit you to get into moves you may otherwise overlook.

These case studies represent how you can add greater precision to moving average crossovers, moving average support/resistance, volume studies, and time-tested patterns such as the cup and handle.

In prior chapters, we applied candlesticks, support/resistance, and momentum indicators with their divergences. The principles that we apply to intraday charts on the indices are exactly the same as those applied to patterns on stocks. As a matter of fact, we don't even need these stocks to be the heavily traded big caps because most great stocks that become leaders start out small.

The only thing I'm not covering in this chapter is stock selection. If you use IBD methodology, you will find ratings systems for relative strength and the accumulation or distribution by the big money mutual fund players. The idea behind stock selection is generally a game of sector rotation. You want to find a sector that is emerging and pick the strongest stocks of the group. Mind you, I'm not talking about the fundamental picture. I suggest riding the coattails of the better stocks the big money players believe are the best stocks. What you will find is that, fundamentally, these stocks will be one and the same. You have enough work keeping track of the technical picture with your new skill without worrying about the profit and loss statements of companies.

### **Trader Tip**

The best setups happen when you get the time bar right on the moving average with a good candle reversal bar.



We have completed most of our study of how the time factor can be combined with contemporary technical analysis. The next factor on which we are going to focus is more future-driven. Now that we have the non Fibonacci/Elliott people on board, I'm going to show you how to project high probability price targets either for the end of bull moves or where a correction is likely to complete.

# 7 | HITTING MOVING TARGETS—FIBONACCI PRICE PROJECTIONS

In every walk of life, we make plans and projections for outcomes. When we graduate from high school and make plans to go to college, we project how much it's going to cost and how long it will take. If we are good about our own lives, we are also planning our careers, finances, vacations, and each day of our lives. This is part of the goal planning process, and the more successful among us do it on a regular basis.

However, a funny thing happens when it comes to financial markets. Speaking specifically about the stock market bubble of the late 1990s, 90 percent of the public lost 90 percent of their bankrolls. Why is that? Sentiment plays a big part. Individually, we are all intelligent people and know what to do. However, peer pressure and our natural tendency to conform to the crowd blind the best and smartest of us to do the dumbest things when it comes to financial markets.

There is another side to this. Academia has brainwashed many of us to believe movements in financial markets are completely random. I think we've proven beyond a shadow of a doubt the fallacy of random walk the-

### Quick Review

Waves 1 and 5 tend toward equality or have .618/1.618 relationships to each other. Wave 3 is never the shortest wave and will choose to extend 1.618, 2.618, or 4.23 times the length of wave 1 as measured from the bottom of wave 2. In bull markets, an ABC correction usually will have the C wave being .618 times the A wave. We covered the interwave relationships of triangles as well as their thrust measurements.

ory. Wall Street analysts who've attended our top universities and had to endure years of this financial nonsense still make projections for companies based on complicated formulas of revenues and p/e ratios. They don't have any idea when they may achieve these projections, yet they make them anyway.

In this chapter, we are going to leave the academics and the fundamental analysts behind. We are going to learn how to make high-probability price projections based on the natural tendencies of universal law. It's the same rule a quarterback uses to throw a pass down the length of the field based on his wide receiver running the 40-yard dash in 4.4 seconds. If it takes the receiver seven seconds to get past a defender and run down the sideline, the quarterback knows that to hit his target on the run, he has to release the ball within three to four seconds from the time the ball is snapped. He projects the ball arriving around 45 yards down the field at the same time the receiver gets there. That is precisely how we hit a moving target on the run.

We've spent the majority of this book illustrating how long it takes a financial instrument to go from point A to point B. The way we hit a moving target is by understanding the tendencies of how charts choose their destinations. We know how long it takes to get there. The quarterback knows how long the receiver takes to go from point A to point B. His job is to project the ball down the field without interference (the defender) getting in the way. Because the cycles tell us how long it is going to take to get there, we must overcome our own interference (emotions and other noise factors) and have the patience to allow price action to get to our goal.

Remember what made Wayne Gretzky great? The rest of the players were chasing the puck. Mr. Gretzky was already calculating in his mind where he thought the puck was going. Consequently, he was a step ahead of everyone else. Hopefully, by the end of this chapter, you too will be a step ahead of the competition.

## CREATING PROJECTIONS

We've already covered the basic Fibonacci relationships, but a quick review is in order. Waves 1 and 5 tend toward equality or have .618/1.618 relationships to each other. Wave 3 is never the shortest wave and will choose to extend 1.618, 2.618, or 4.23 times the length of wave 1 as measured from the bottom of wave 2. In bull markets, an ABC correction usually will have the C wave being .618 times the A wave. We covered the interwave relationships of triangles as well as their thrust measurements.

The problem with all of these possibilities is that we don't know which one the market is likely to elect. That is a good question, and in quantum physics the answer is that a market will do whatever it wants whenever it wants. Luckily, it leaves clues as to its tendencies. Since this is a game of probabilities, we have to look at the highest probability case.

How do we do this? When we look at a price chart, we need to be aware of where support/resistance lines and moving averages are. Many times, the 50- or 200-day moving average is going to be within pennies of one of the Fibonacci retracement points. Funny how it works that Fibonacci players and IBD people make the exact same projections. It's because the moving average is in the same place as the Fibonacci retracement point. But it doesn't always work out this way.

Starting with price retracements, the way we determine the highest probability point for a reversal is to draw Fibonacci retracements from various pivot points along the larger degree move. What we will find is a set of price point retracement clusters lining up in the same place. Odds are this becomes the highest probability point for the termination of a correction, whether a bull or bear phase.

If we can't get an exact point where two Fibonacci price points line up, we will wait for the first retracement leg and look for a combination of factors. This will become clearer as we look through the charts.

Starting with price retracements, the way we determine the highest probability point for a reversal is to draw Fibonacci retracements from various pivot points along the larger degree move. What we will find is a set of price point retracement clusters lining up in the same place. Odds are this becomes the highest probability point for the termination of a correction, whether a bull or bear phase.



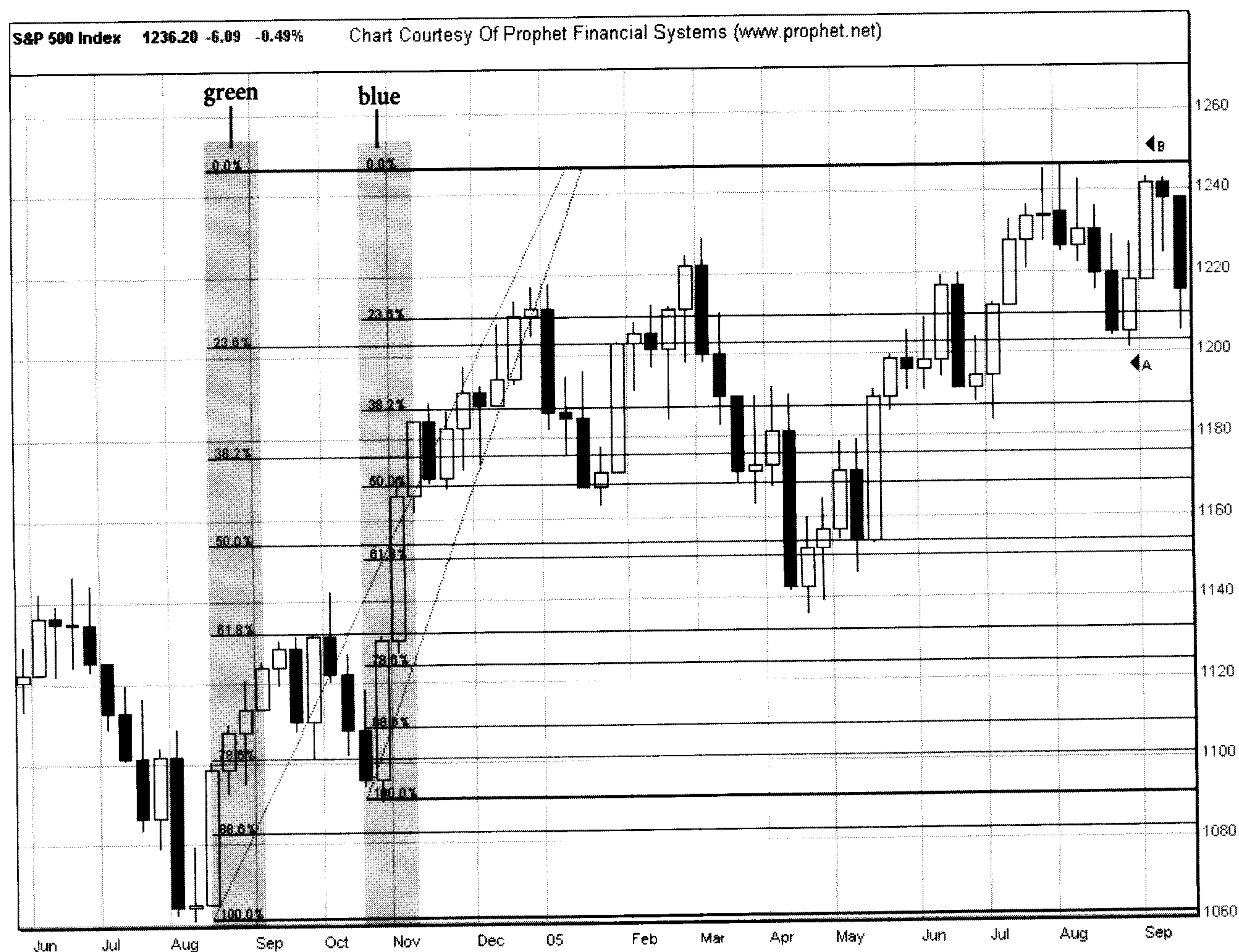
## INTRODUCTORY CASE STUDIES

### S&P 500

Figure 7.1 is a weekly chart of the S&P 500 from the August 2004 low to the early August 2005 high. For now, forget about the time cycles. Since we can make a case for a five-wave sequence from the low to the March 2005 high as well the August 2005 high, we have to draw a series of Fibonacci retracements from the top to the bottom and from the top to the first pivot low in October 2004. In truth, we don't know exactly how much of the move up is going to be retraced. It is really a trial-and-error process.

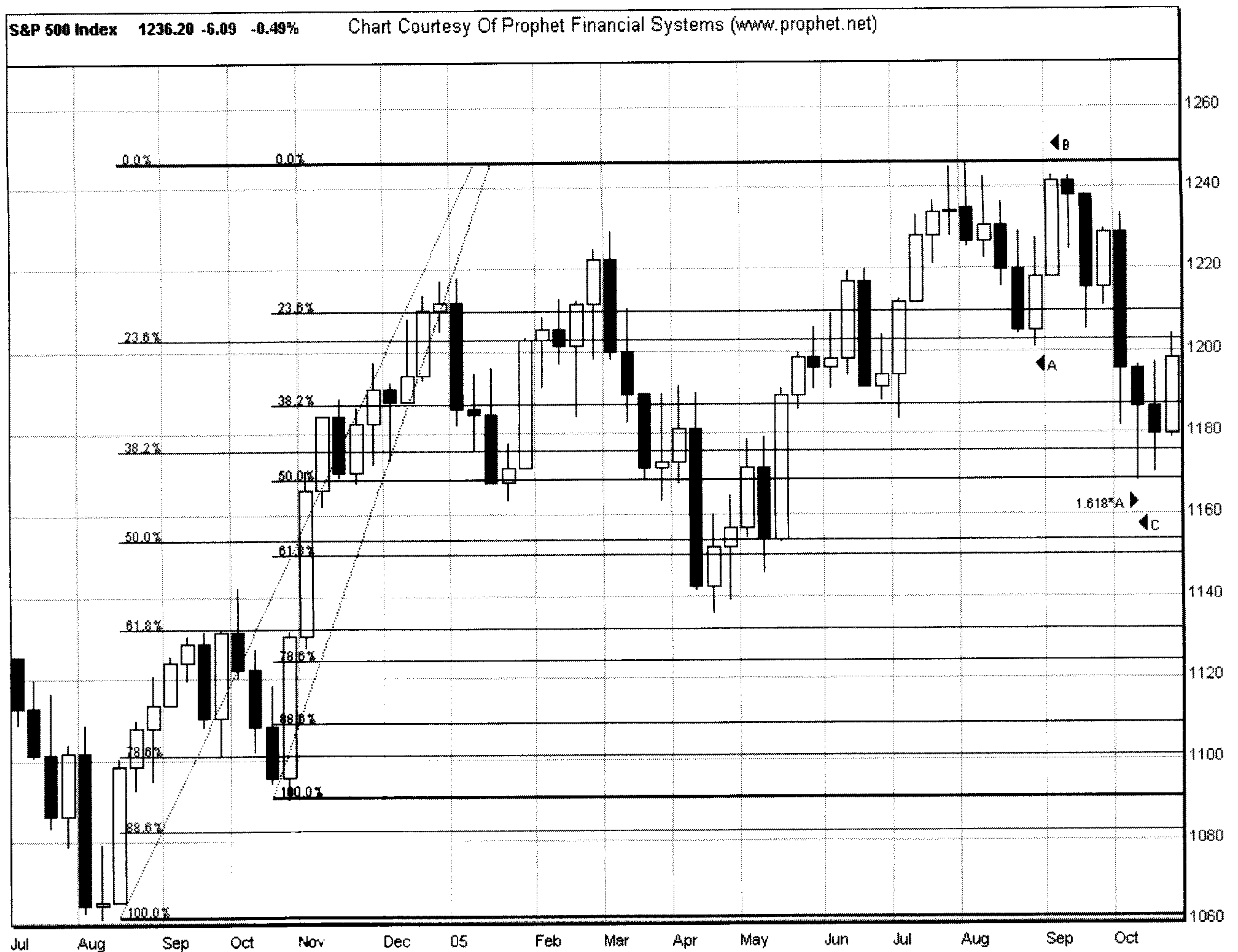
**Figure 7.1**

Weekly retracement of S&P 500  
from Aug 2004 low to early Aug  
2005 high



Another area to consider would be the 1130–1136 area, which represents the blue 61 percent retracement that is near the April low. Once the first leg down off the high completes, we have a little more information to go by, and we start looking at whether there are any correlations between internal wave extension points and Fibonacci points. The more information

### Figure 7.2

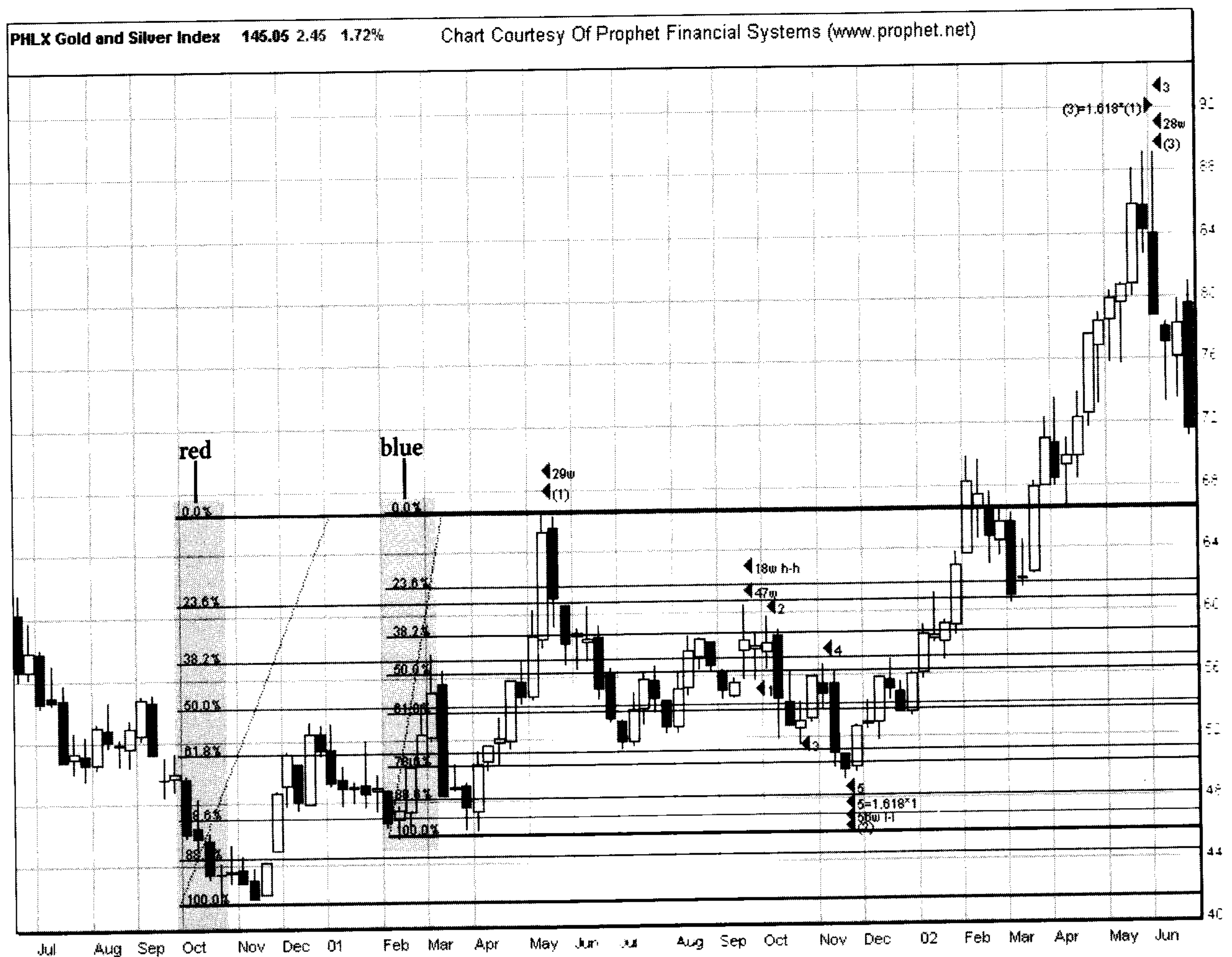


we have, the easier it is to make a forecast. If you were a quarterback and the chart is the field, you could anticipate your receivers being in one of three places. Of course, you might say this is not helpful because we still have a degree of uncertainty. You are right! It's easy to ascertain what happened by looking at the charts after the fact.

However, three potential reversal points to start are better than none. It's better to have some idea of what is going to happen than to fly by the seat of your pants. The first chart (Figure 7.2) is what The Forecaster email forecasting service had to work with when the retest of the high failed. At that point, the 1.618 extension of the A leg as measured from the top of the B leg projected to 1168. As it turned out, the 50 percent retracement point off the secondary low from October 2004 was also 1168. However,

**Figure 7.3**

XAU Fibonacci projection off bottom





until the first leg down and retest of the high failed, we could not make such a projection. Now that we are armed with this new information, this cluster of a Fibonacci retracement point and an interwave extension point greatly increased the probabilities that we should be pinpointing the 1168 area as a high-probability outcome point. That is exactly what happened; the chart reversed exactly on 1168. Although this is not a chapter on the time factor, we can see a real good cluster here as well. The October 2005 price point is 11 weeks down, 26 weeks off the April low, and 62 weeks off the bottom. Everything checks out.

## Gold

The next case study exhibits many of the characteristics necessary for coming up with good Fibonacci projections. Figure 7.3 is a chart of the XAU bottom. How many remember it? I'm sure many who are reading this got excited about gold and gold stocks somewhere along the way early in the decade. Later, we heard the catcalls and projections by analysts and pundits alike who predicted gold stocks were going to the moon. For the sake of this discussion, let's forget all of that. We need to go back to a point in time before any of this emotional excitement happened. Are you ready?

Keep in mind how sentiment affects our thinking around any bottom. Gold and gold stocks were so hated and trashed that nobody believed in their ability to go anywhere but down, let alone the moon. In Figure 7.3, we are looking at a weekly chart showing only the first wave up. Notice how the rise of the first wave from the 40s into the high 60s tops in 29 weeks. The dark cloud cover in week 30 suggests we are going to have a pullback. Try to remember, at that time we don't know whether the leg down is going to create a new low.

The first thing you want to do is draw Fibonacci retracement lines for the entire leg up. The second thing you want to do is find a support area somewhere in that first wave up and draw the Fibonacci retracement lines. We don't know if this is going to be a retracement leg or a continuation of the long bear market for gold stocks, do we? The only real way to know is through a process of elimination. If the entire wave were to have a meaningful retracement through the 61 percent level, odds are it is either going all the way to retest the low or will continue on with a fresh low. Until that happens, we really don't know.



If we draw retracement levels in at least two degrees of trend (like we've done on this chart), we have some kind of idea of where the important violations would occur. Look at where the blue and red lines cluster. There is a blue 50 percent, red 38 percent, blue 61 percent, red 50 percent, and blue 78 percent, red 61 percent. These are the three main clusters of where this leg can end. Only at the point in time when all of these clusters are violated do we seriously consider that this leg is going back to retest the low.

The purpose of this exercise is to develop discipline to avoid looking too far down the road. If you listen to the television too much, you will tend to get caught up in the emotion of far-reaching predictions. Looking at the situation at the dark cloud cover in week 30, do we really have any idea what this wave is going to do? Remember what we discussed way back in Chapter 1. Sentiment in wave 2 tends to repeat the sentiment of the overall prior trend. In this case, it's "here we go again." The only way you can stay in control of your emotions and separate yourself from the crowd is to follow this discipline; keep your head in the chart and block the emotions of the crowd.

Figure 7.3 throws us several curve balls. First of all, the first leg down retraces 61 percent of the move up. The fact that it turns back up right there may induce some players to conclude the correction is over. Financial markets are tough. This isn't the tooth fairy, and things don't always go as planned. If you bought there and ended up getting stopped out on the C wave down, that's the way it goes. We do get another reversal on the 47th week of the trend, which clusters with an 18-week, high-to-high cycle. See the black candle in week 50? If you were long based on buying off the first leg back down, that candle might be your indication that the long trade isn't working out and to pull the rip cord. But right now, the game is still trying to find where the retest of the low will end because we still haven't violated the 61 percent retracement level or any of the clusters listed above.

We don't have a daily chart here, but I have outlined the five-wave sequence of this C leg down. You can see a short first wave in week 48. By the time we get to week 54, we would be following a daily chart of this leg in real time. One of the cluster projections would be that a 1.618 extension of wave 1 would cluster exactly with the first leg in week 48 on the blue 78 percent retracement line. We don't know if the market will elect

to reverse there. This is not the world of academia we are dealing with, so we wait and see what happens. We have our three violation areas as mentioned above. We also see that as we come down to this area, we are 56 weeks off the low. In week 57, a white candle takes price action back up. I'm here to tell you that you won't know for sure whether or not this is the turn.

Success in financial markets comes when we go against the crowd and have the courage of our convictions to take educated low-risk/high-reward opportunities that present themselves. I'm not implying to be a contrarian for the sake of being a contrarian. However, the more information you have, the better decisions you'll make. The more evidence you have, the more you can build a case to develop the courage of your convictions to do the right thing at the right time. In this case, because it would be a very scary proposition, you should build a small position at first, see if it works out, and then add to it over time.

Why might you want to add to this position? If you are right about the correction being over, you just took advantage of Gann's best trading advice. By now, you know what that is: the best trading opportunities come after the retracement of the first leg. The question is, how good might this leg be? Going back to the first leg, we make a common Fibonacci price extension projection of 1.618\* the first wave as measured from the bottom of the second leg.

Looking at this with hindsight, we know the chart went all the way to 170. Realistically, nobody had any idea that was ever going to happen when that retest of the low confirmed. The only thing we could possibly project is the 1.618 extension that would take us into the 80s. Over the next 28 (Lucas 29-1) weeks, that is exactly what happened.

The XAU chart is a great example of how we can project the end of the third wave based on common Fibonacci projections. As you can see, projections for the end of corrections are much trickier. Nobody has ever come up with the perfect script, but this one is as close as you can get. Because practice makes perfect, let's look at a few more examples. I believe the more examples you see,

### **Gann's Best Trading Advice**

The best trading opportunities come after the retracement of the first leg.





The first leg off the bottom in October 2002 is followed by a second wave retest of the low. The next wave is the big 2003 rally leg. Simply put, the big wave is an exact 2.618 price extension of the first wave. Check out the spike at the beginning of October 2003. Once we take out the high near the blue 38 percent line, we are beyond the 1.618 extension point. In October, we get that small pullback followed by a white candle that takes out the 1.618 extension level. When a big wave takes out a 1.618 extension level, the odds that it will continue on to the 2.618 extension level increase greatly. I want to suggest it would be folly to anticipate a 2.618 extension until the 1.618 extension level is taken out. We always want to take this a step at a time. Wave 3 finally tops at the 2.618 extension even though we don't have a clear time relationship on the top at the weekly level. Why doesn't the time element work? Some time calculations are too big of a bother because they are just too complicated and impractical. In this case, we have a 44-week third leg after a 9-week first leg, which is a 4.89 time extension. Perhaps the daily or hourly bars have perfect time relationships. Whatever the case, this chart is being driven by the more obvious price element.

The fourth wave pullback works, as it ends on the 61 percent price retracement of the whole move up. As you can see, when we draw the Fibonacci retracement levels, the first drop ends on the 38 percent retracement marker, which is a common relationship in A waves but finally ends in an area of two 61 percent price retracement levels. The fifth wave is an approximate 1.618 extension of the first wave and ends in a quick reversal in the 30th week just over the 29-week cycle. This is also the 188th (189-1) week of the trend. In this case, the progression is first wave, third wave as a 2.618 extension, and fifth wave as a 1.618 extension. The next two charts relate to the big fourth wave correction.

Now we switch over to a daily chart (Figure 7.5), and we actually pick up the action in the first part of the C wave down. On the weekly chart, this is the fourth quarter of 2004 and the first half of 2005. Here is another case where the time element doesn't work out perfectly but the price action does. After we get the first leg down from 33.25 to 26.50, we get a retracement back up in January 2005. As you can see, we don't have various levels of where to draw the line to get multiple retracement points. This one is fairly clean as it retraces exactly 61 percent of the drop where I drew up the five waves.



Was there a clue we might be topping at that 61 percent level? In fact, there was such a clue. If you look at the move to 30.60, you can make out an impulse sequence.

Notice how these five waves to the upside trace without overlap. Notice how wave 3 is  $1.618 \times 1$  and that waves 1 and 5 tend toward equality. The point here is to establish where this leg is going to end. The point where small 5 is equal to small 1 happens to cluster at a small degree 61 percent price retracement level. There is something else going on here as well. Go back to the first chapter where we discussed how some of your notions of traditional Elliott are severely challenged. These five waves up, in an apparent correction, do not overlap. We have been taught that corrective waves overlap, and they are not the main trend. We have also been taught that impulse waves (no overlap) are the main trend. Here you can clearly see that an impulse wave up is just a small part of an overall larger wave down. Does that mean everything we discussed in the first part of the book about traditional Elliott waves is wrong? No, it does not.

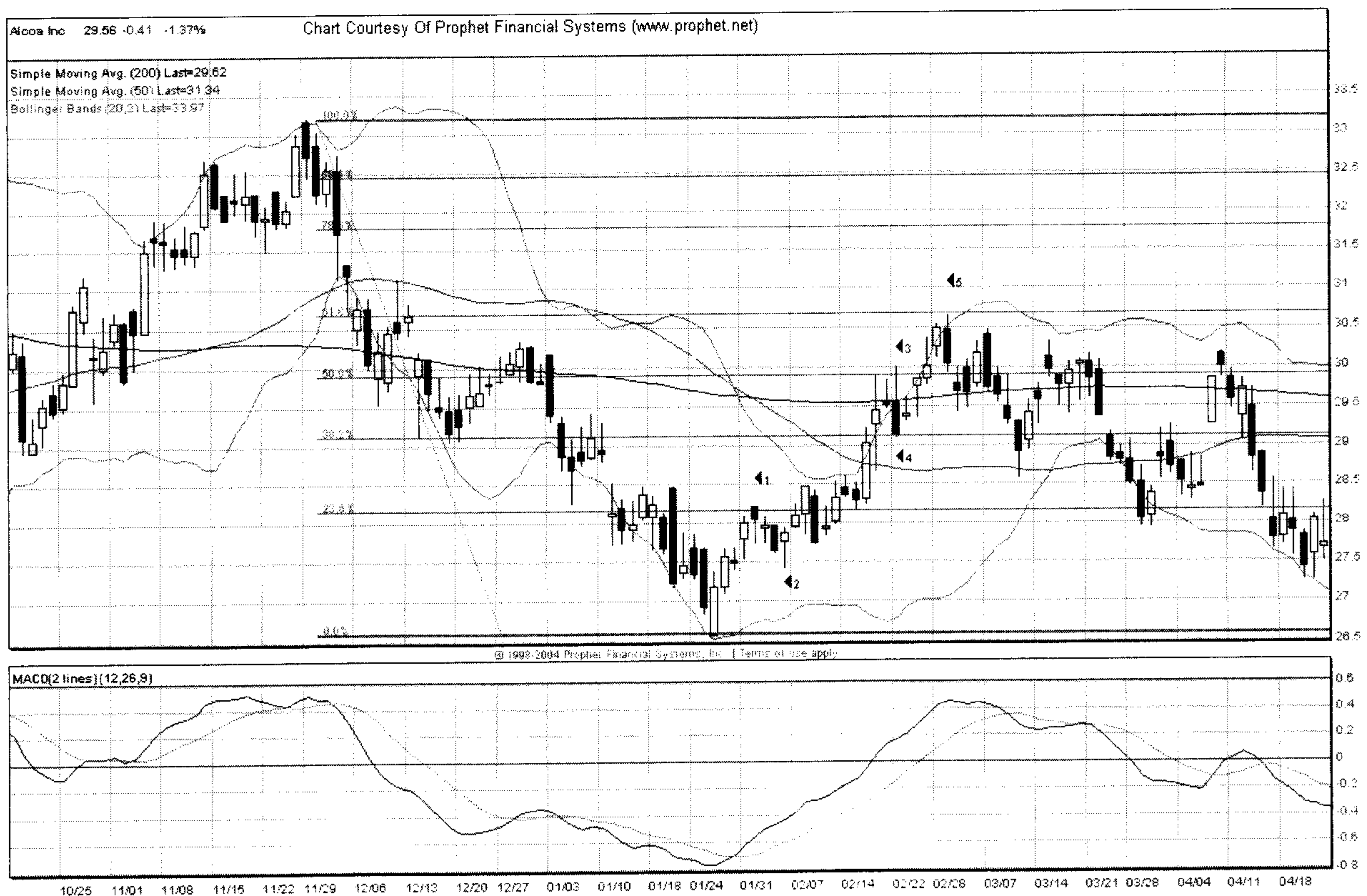
The rules of Elliott work much of the time. They just don't work often enough for you to rely on them exclusively when your money is on the line. Elliott waves are the basic structure of financial markets. Think of them as your basic compass to guide you from point A to point B. The other night I was watching a documentary on television about the California gold rush of 1849. Do you realize that people from all over the country went west by horse and buggy? Think of the hundreds of miles of mountainous terrain west of the Great Divide. These people actually went at a pace of two miles a day. Those who didn't want to brave the elements actually went from New York to San Francisco via steamship by way of the southern tip of South America. I won't go so far as to say that Elliott waves are that archaic. But I will say there are many different ways of going from New York to San Francisco. You can have basic transportation, or you can go in style. When you add the Lucas cycles, candlesticks, and momentum indicators, you increase your chances of success exponentially.

Getting back to the chart in Figure 7.5, here we have a 40-day drop followed by 24-day retracement. Do the math;  $24/40$  is a 60% retracement. In this case, we have a 61% price retracement clustering with a 60% time retracement. If we broke this down to an hourly chart, we can likely get even more precise. The next leg down in the last week of February starts on a bearish engulfing bar.

Figure 7.6 picks up the next phase of the correction. You can see this portion of the C wave (the weekly chart is not the whole wave) is divided into a classic ABC sharp with overlapping waves. These two waves are broken down into a smaller ABC and tend to be equal. This portion of the drop completes in 90 (Fibonacci  $89+1$ ) days. If you observe (A) closely, you will see that  $c = 1.618 \cdot a$ . In addition, although the price points suggest (A) and (C) are close to equal in terms of price, (A) also equals (C) in terms of time, because (A) is 42 days down and (C) is 43 days down. For the next retracement up in July and August, we once again draw the Fibonacci lines from the two major pivots on this chart. After the 90-day wave, we gap up, which happened to coincide with a major news event. The entire market took off on July 7, 2005, as a result of the London bombing. The London bombing may have been the apparent excuse for the market to rally, but if we were to examine charts of the indices very closely, this was one of our intermediate term turn windows for the year.

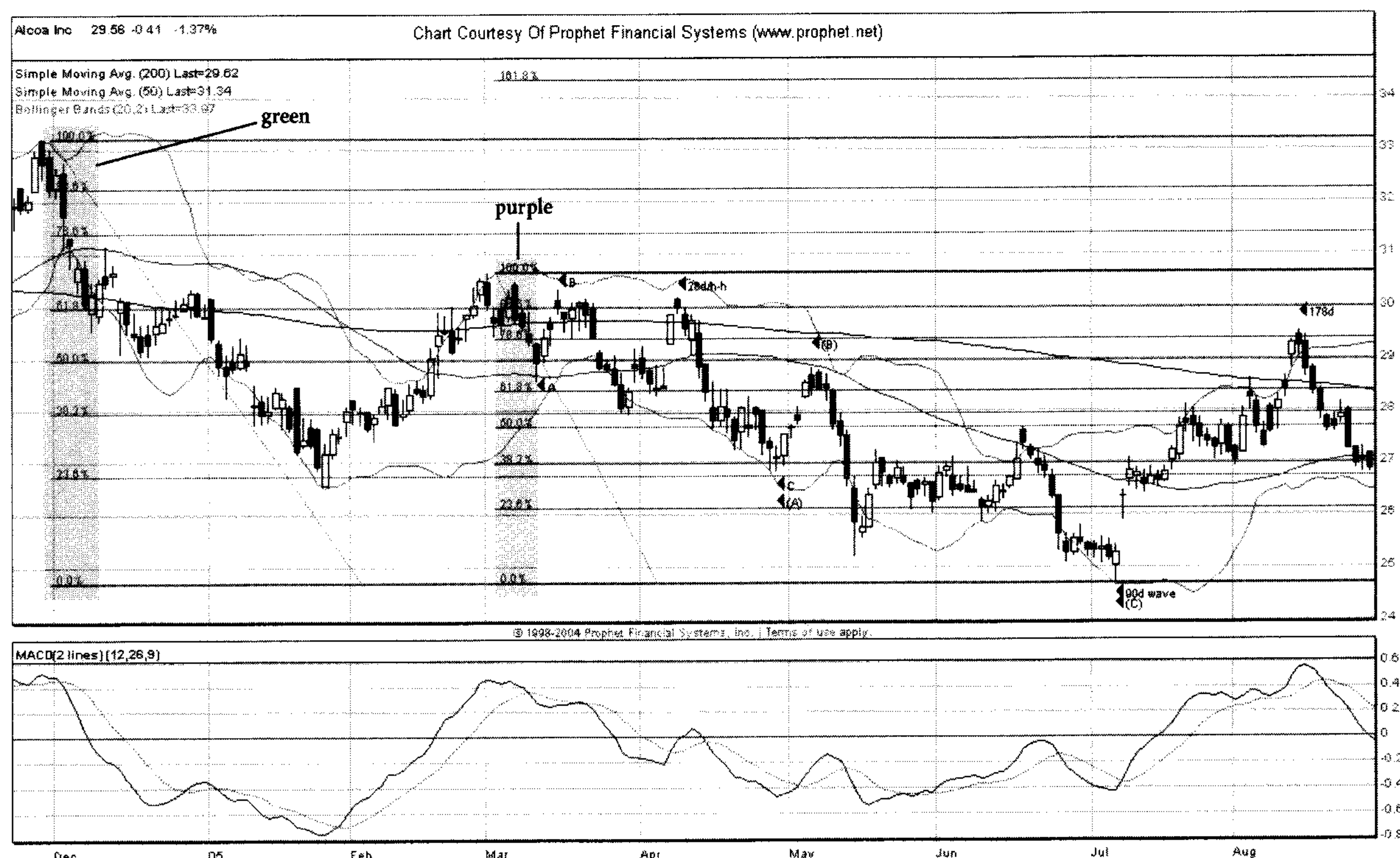
**Figure 7.5**

Alcoa bounce to 61%



### Figure 7.6

## Alcoa, next phase of the correction





What can we learn from the examples in this chapter so far? Fibonacci price retracements and extension points do work, but it's an inexact science. If it were simple, there would be a lot more stock market millionaires... but there aren't. It takes a lot of dedication, work, and discipline to stay on top of these charts. Some charts are going to give you perfect setups that are easy and obvious to see. Other charts are going to turn on a cluster of some Fibonacci price clusters combined with some Fibonacci time clusters. Other charts are going to give you an even more complex set of calculations. As you saw above, one Alcoa leg didn't give us an exact number of time bars; but, when we calculated two seemingly unrelated waves together, we established a time retracement relationship that would not be obvious to most traders or analysts.

I purposely left out the final drop of this pattern (you can see what happened on the weekly chart) because we are just working with how to catch the end of a retracement in this chapter. We've already covered how the whole fourth-wave correction ends on the larger 61 percent price retracement.

## Safeway Stores

Our next case study is a bull phase for Safeway Stores (SWY). Here is another case of how we project a 1.618 price extension target of the first wave as measured from the bottom of wave 2. When it gets taken out, you can see the magnet that attracts this chart (Figure 7.7) up to the 2.618 price extension, where it tops and goes no further in the current cycle.

This is another strange pattern where the first leg off the bottom is 17 days, and the second wave correction is 85 days for a total of 102 at price point 18 near the end of March. This pattern takes off on the 103rd day and tops on the 238th day. What is strange about this? Everything on Figure 7.7 is a square of 17. The second leg ends on the 102nd day, which is  $17 \times 6$ , and the 238th day is  $17 \times 14$ . The time element on this chart turns out to be more of a geometric element than a Fibonacci element.

Whatever the case, after the 1.618 price target is removed, we project a 2.618 price target. By the time that is hit, we have a wave that measures 2.618 wave 1 in terms of price, and 8 times in terms of time. The other factor that stands out like a sore thumb is MACD. Momentum peaks shortly after the gap up in April that kicks off the third wave. We had a



bearish divergence from the time in June where we hit the 162nd day of the move, which extends another 4 months. If there ever was a textbook signal of why you don't short a bearish divergence until the right time, this is it. The final wave up does not peak until we hit a cluster of 26 days up for the final wave—a high-to-high cycle of 76 (Lucas) days with the last major high at day 162 ( $238 - 162 = 76$ ).

On Figure 7.8, we zoom in on the big corrective second wave. As you can see, we have an ABC progression where A completes in 39 days and C completes in 26 days. They are both multiples of 13. In terms of price, the C wave measures .618 times the A wave. We mentioned earlier that in bullish progressions, the C wave will elect the shorter .618 relationship with its A-wave counterpart. Here we have a case where C is taking two-thirds of the time of the A wave and only moving .618 in terms of price. It finally bottoms on the 78 percent price retracement. Notice the white candle, which is a bullish piercing reversal right on the time/price cluster.

**Figure 7.7**

Safeway Stores 1.618 extension



As we try to figure out whether this chart might take off, we realize the A wave down already retraced 78 percent, and if it were to have a 1.618 extension south, it would nullify the whole first wave move up because it would have to go beyond the October 25 bottom. Apply common sense to the situation; we know a second wave can only do one of two things. It's either coming to support at the A wave low or it's retesting the bottom. There are no other options here without deciding something else is going on. The chart elects the 78 percent level as it clusters with  $C = .618 \times A$ . Realize that if a chart doesn't stop at a certain retracement level, probabilities shift so that it goes to the next retracement level. In the larger scheme of certain patterns, going to the next retracement level doesn't make any sense. Here, we have a correction that is in a tight range; the A wave only spans just over 2 points and the C wave can't be a 1.61 extension because it would be too big. Finally, Figure 7.8 illustrates that moving averages will not contain moves during a corrective leg. Using the timing model is the best way to navigate through this maze.

**Figure 7.8**

Zoom on the big corrective 2nd wave, SWY

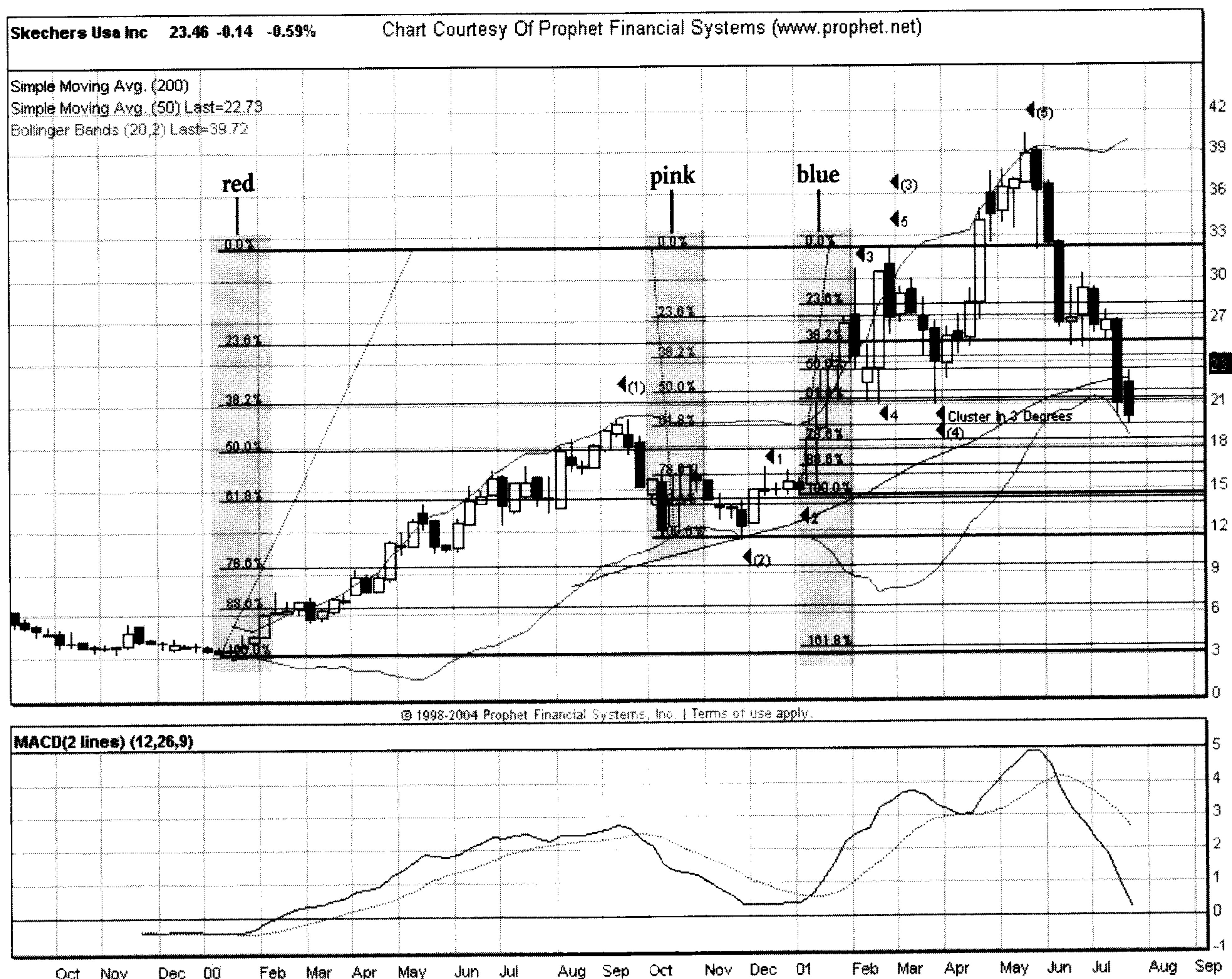


## Skechers

In the last chapter, we covered Skechers in terms of price, volume, and time. We revisit this chart again because we have a whole new set of Fibonacci price relationships that exhibit how to determine where a retracement will end. The first chart, Figure 7.9, shows the whole progression from January 2000 through May 2001. Let's look at this wave from the top of 5 of (3) at the end of February 2001. I've drawn Fibonacci retracement lines from the three major pivots on this chart. The red 38 percent retracement line matches up with the blue 61 percent line and falls right in the middle of the pink 50 percent–61 percent retracement line.

**Figure 7.9**

Skechers, Fibonacci retracement cluster





### Figure 7.10

**Skechers Usa Inc** 23.46 -0.14 -0.59%

Chart Courtesy Of Prophet Financial Systems (www.prophet.net)

Simple Moving Avg. (200) Last=23.70  
Simple Moving Avg. (50) Last=30.70  
Bollinger Bands (20,2) Last=30.62

0.0%  
23.6%  
38.2%  
50.0%  
61.8%  
78.6%  
88.6%

pink  
blue

(1)  
B  
A  
C  
(2)  
C=618%A

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**MACD(2 lines) (12,26,9)**

Bullish Divergence

00 Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

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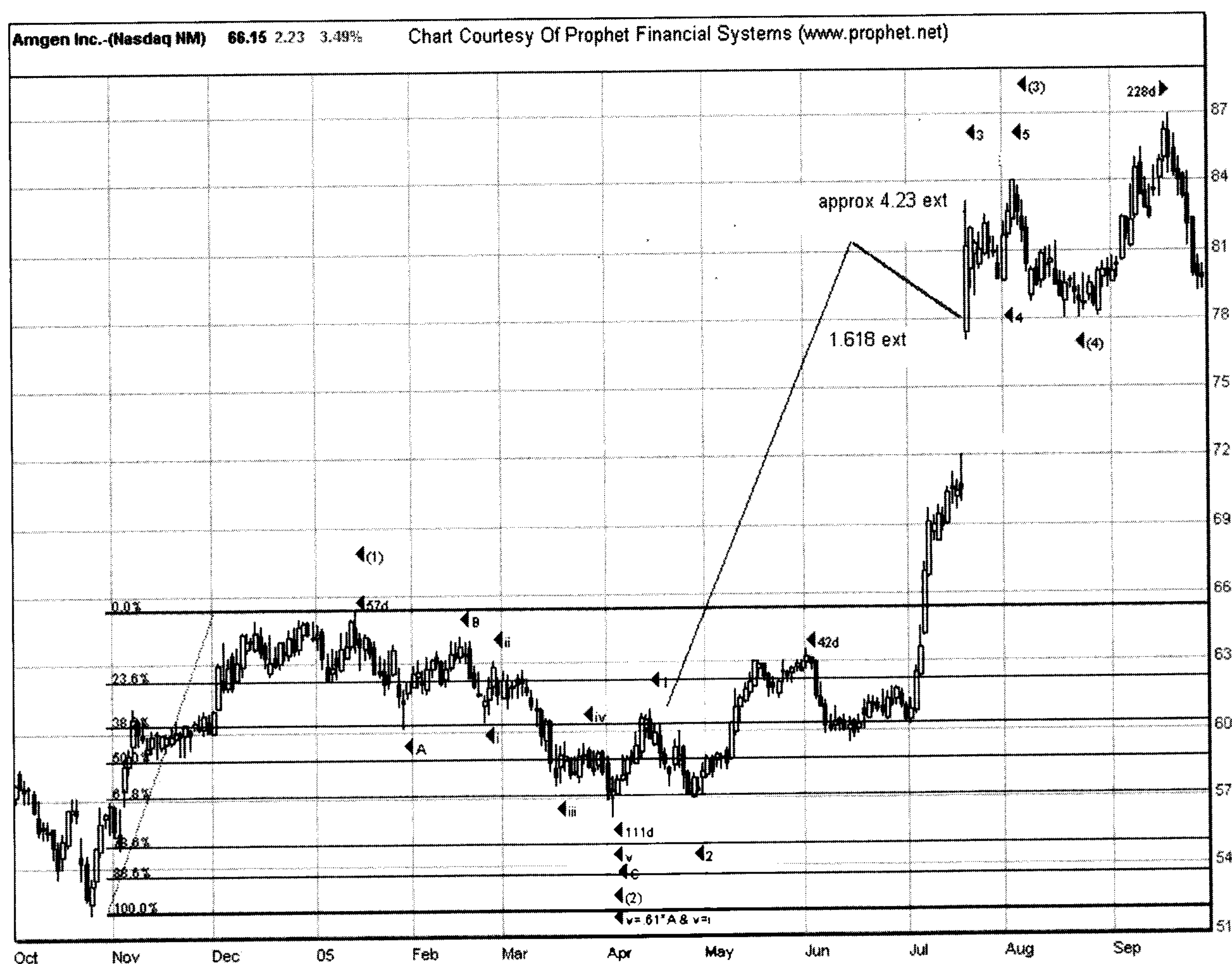
where the first wave terminated, and if price action violates into that area, there is a good chance something else is going on other than getting ready to take off in a fifth wave. Remember that I said traditional Elliott works a lot of the time, but there are gaps. This is one of those times where the traditional Elliott compass keeps us on track.

Our final chart of Skechers, Figure 7.10, illustrates how we might determine where the second-wave correction might end.

This is a close-up of the first and second waves. The second wave takes on the shape of an ABC, where just like Safeway, the C wave is  $.618^*$  the A wave. We've drawn the Fibonacci retracement lines, and you can see where the 50 percent and 61 percent retracement lines create an invisible

**Figure 7.11**

Amgen 5 wave impulse



line of support. C ends where it equals  $.618 \times A$ , and we have three relationships terminating at that line not counting the time element. How do you recognize the turn? First, you have these clusters, and then you have the morning star candle pattern that validates the reversal. You don't take the trade until everything is in place.

## ADVANCED CASE STUDIES

We've covered many common relationship scenarios. If all we had to plan for were common Fibonacci relationships, we would all be a lot richer. I won't say there are an infinite amount of possibilities; but, we are dealing with nature, and there are plenty of lower probability scenarios to be aware of that are a practical part of our trading day. Some of these charts are so complex that it is not worth trying to figure out all of the relationships in them; it's just easier to find a better setup. On the other hand, a Fibonacci study would not be complete unless we at least attempt to cover some of the more complex scenarios that you may come across.

A lower probability scenario is the 4.23 price extension. The 4.23 scenario comes about as a result of adding a 2.618 and 1.618 together. In terms of time, we see legs that have 42 or 43 bars. We don't see them very often, but you have seen several of them in this book.

### Amgen

Let's break down Figure 7.11 slowly, one step at a time. We have a 57-day first wave, which is really a 56-day wave culminating briefly on what is likely a gap-and-crap spike on the 57th day. The second wave bottoms on day 111 for a 54-day pullback. From the bottom of the second wave to the top, there is a 117-day leg. The time element works on this chart too. Let's examine wave (3) first. Sometimes, the 1.618 price extension turns out to be the point of recognition as opposed to the end of the wave. That appears to be the case in this scenario. As you can see, the gap at 72 is the approximate 1.618 price extension from the leg that ends on day 42 of the move near price point 63, as measured from the June low near 60. The day of the gap up finds the top of the gap as an approximate 4.23 price extension of wave 1 off the April low. Inside of wave (3), waves 1 and 5 are roughly equal. What is also interesting on this chart is the 1.618 price

extension point of larger wave (1) happens to be where price action opens on the day of the gap up near 78, which clusters with the smaller 4.23 extension point. Wave (3) tops, (4) bottoms, and the final wave begins. Wave (5) closely approximates the .618/1.618 relationship with wave (1). It's not exact, but it's close.

Let's go back to wave (2). Here we have another ABC sharp pattern with a multiple cluster termination point. I've illustrated an A wave down and then a subdividing C wave. Inside the C wave, we have five smaller waves, and the final termination point has small  $v = .618 * A$  as well as  $v$  roughly equal to small  $i$  in the same progression. All of this terminates right near the 61 percent retracement level.

**Figure 7.12**

Apple Computer, second  
half of the 4 year move





## Apple Computer

Figure 7.12 illustrates the second half of a 4-year move in Apple Computer (AAPL). This chart has been on a tremendous tear. Based on all possible common Fibonacci extensions, no other count works as well as this one does, so we have to conclude we have a rare second-wave triangle (it works,  $d$  up is  $.618 \times b$  up). The gap up is on the 33rd day of the triangle. When we consider this triangle, we have a very close approximation to a 4.23 extension near the top of 3. The triangle also works from the vantage point of the time factor. Although the gap up is the 33rd day off the wave 1 high, it is also the 44th day of the move. If we take the 150th bar and subtract the first 43 bars, we have a 107-day third wave (one shy of a Gann 108 cycle), which is a 4.23 extension. The top is 170 days. We subtract the first 43 bars and the whole leg is 127 days, which also works very well. As I was writing this book, this chart also had a 2006 leg down of 126 days and a leg up into January 2007 of another 127 days. Waves 1 and 5 have a close  $.618/1.618$  relationship to each other.

One thing the time factor does for us is eliminate much of the subjectivity of Elliott. For sure, we've discussed this elsewhere. However, Figure 7.12 is a perfect example. If we put 10 Elliotticians in the room, we might get 10 different wave counts when we look at this particular chart. The waves are not easy to count, and we don't have obvious common Fibonacci relationships. Some of you may dispute my apparent second-wave triangle in this progression. However, what can't be argued is the time bar count, which works so well with the top of the third (day 150) and top of the fifth (day 170). There may be other wave counts that work, but considering the time factor, this one works extremely well.

We've seen how to project target points using common Fibonacci interwave extensions. They work in the vast majority of cases. To summarize, we are primarily looking for a 1.618 extension in the third wave as measured from the bottom of wave 2. If this were all you got out of this chapter, you would understand why Gann stated that the most profitable and highest probability move takes place in a new trend after the first leg up, which is then fol-

## Quick Review

We are primarily looking for a 1.618 extension in the third wave as measured from the bottom of wave 2.

We've seen here that waves don't necessarily stop at the 1.618 extension point. If you are tracking a wave that takes out the 1.618 extension point, the probability shifts that it is targeting 2.618 instead. The vast majority of extensions are 1.618 or 2.618. And, as you've now seen, in certain instances we are going to have a 4.23 extension.



lowed by the first retracement. Because Gann came along before Elliott, he didn't call it a third wave.

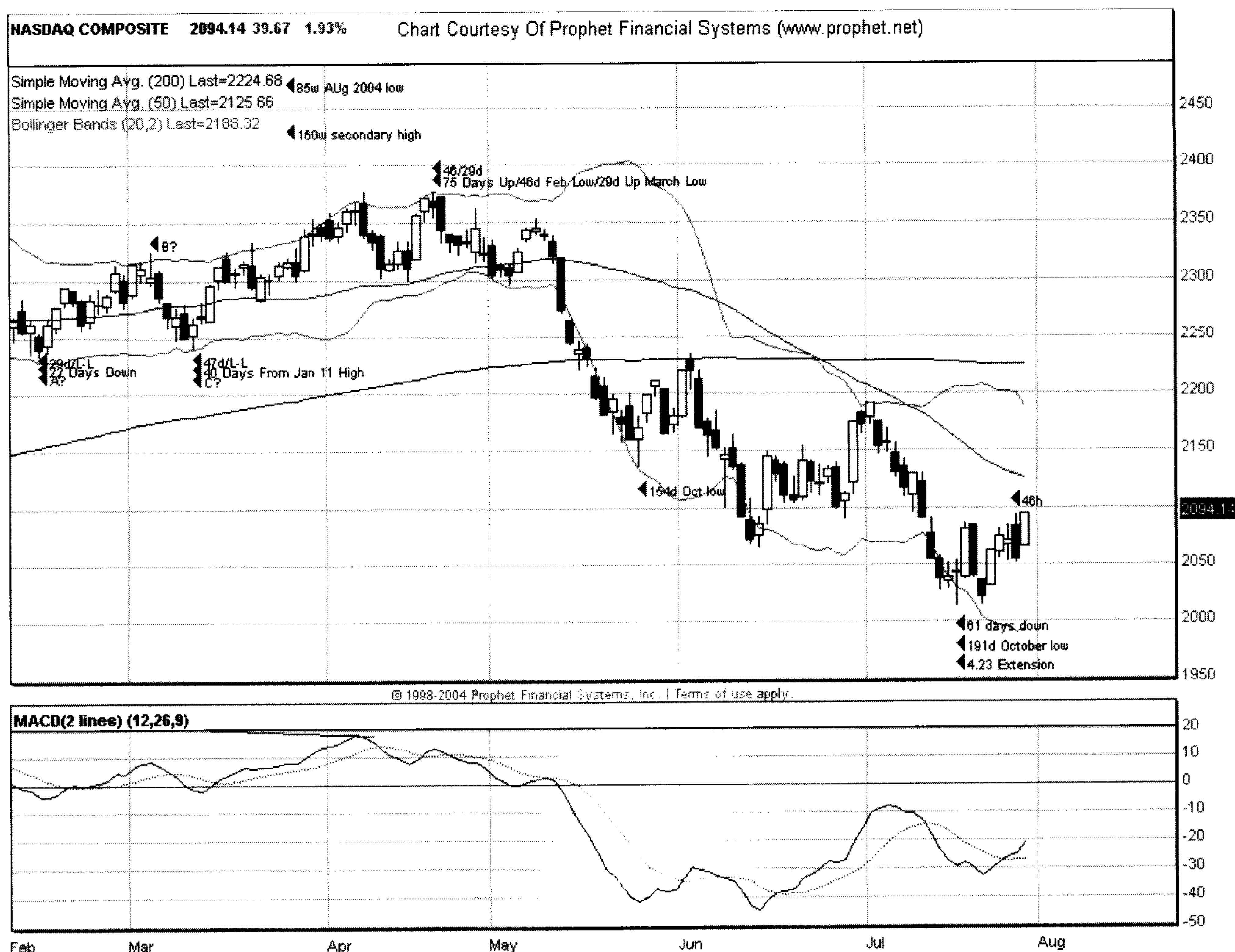
We've seen here that waves don't necessarily stop at the 1.618 extension point. If you are tracking a wave that takes out the 1.618 extension point, the probability shifts that it is targeting 2.618 instead. The vast majority of extensions are 1.618 or 2.618. And, as you've now seen, in certain instances we are going to have a 4.23 extension.

## NASDAQ

We've seen Figure 7.13 earlier near the top. The April top was 2375, and the first leg down in early May hit a near term low at 2295 for 80 points.

**Figure 7.13**

NASDAQ (4.23 extensions)



The high on May 8th was 2352, when the real drop started in earnest. Do the math:  $4.23 \times 80 = 338$ . We hit a low on July 18 at 2012.78. Subtracting 338 from 2352 nets 2014, meaning we missed that target by 1 point, which started a wave in the opposite direction. As you can see, 4.23 extensions only kick in during extreme situations. For instance, some of the larger sell-offs of the past couple of years have been 4.23 extensions. Internal calculations for selling waves in the XAU and SOX have shown 4.23 extensions. The verdict on 4.23 extensions is that they are a lower probability, but when a wave seemingly gets out of control, as the recent NASDAQ chart did, you may be able to recognize a low (as The Fibonacci Forecaster did) using this common Fibonacci extension point.

For your information, even rarer is a 6.848 extension. In fact, it's so rare that I don't have one for this book.

This is the basic structure of how retracements and extensions work. As you've seen, they don't work in all cases; but then again, nothing works in all cases. Why? Because we are dealing with Chaos Theory and quantum physics, that's why. There are things in the universe that are still beyond the comprehension of our best scientists. If medical science understood everything, we'd cure all diseases. Of course, we've closed the gap on many killer diseases just as we are closing the gap in our understanding of financial markets.

In the next chapter, we are going to work at closing that gap even further. We are going to look at a different way to measure Fibonacci extensions. We will start to examine some really advanced techniques. They don't work in every case, but there are enough examples in all degrees of trend to work with them successfully. I haven't included them until now because we first had to set the table with the fundamental relationships. I will tell you: when I started working with these advanced techniques, my understanding of technical analysis took another quantum leap forward.



## 8 | ADVANCED PROJECTION TECHNIQUES

Up to this point, we've compiled a very decent catalog of Fibonacci and Lucas studies. By combining most standard methodologies with the Lucas Cycles, we've created the best pattern recognition methodology on the planet.

Right now, you have enough tools in your arsenal not only to make the playoffs, but also to qualify for the championship game. However, we shouldn't be happy with just getting to the championship game. Think about your favorite sports teams. Whether you follow the NFL or the World Cup, isn't it painful to lose the big one?

Let's take the Super Bowl, for instance. Your team fights all season just to qualify for the playoffs. Depending on where they finished the season, they have to survive either two or three big playoff games to get to the Super Bowl. If they make it, you now have to endure two weeks of hype leading up to the game. It's a very exciting time, but I don't think I have to tell you how much it's going to hurt if your team loses. Sure, they had a great season; but, if you come so close, why not win the thing?



What's the difference between winning and losing? Not much, really. It's the little things that mean a lot. It's that extra bit of preparation, that extra 15 minutes of practice. It's the extra studying, paying attention to small details. Sometimes, adding one extra surprise play to the book will catch the other team off guard and make the difference between winning and losing.

## GOING THE EXTRA MILE

In trading, winning the championship means being able to get into consistent winning situations and to reduce your stop-out ratio.

If you are really close to breaking even or just starting to win small, any edge will make a big difference for you. If you can beat the odds of people who don't lose the bankroll and start to turn a profit in the long haul, you are on the road to winning the championship in your own life.

This doesn't apply only to sports; it also applies to life. Many years ago, when I was in sales, I had to apply this to my own life. I used to work for 3M Sound Products, which is a division of 3M (MMM). Those were the guys who actually invented Post It notes. In any event, the Sound Products division was the main competitor to Muzak, the originator of elevator music. Before there was XM or Sirius satellite radio, there was Muzak, and 3M was supplying commercial-free music to retail stores, restaurants, and any other place that required background music.

It was my job to sell these systems. Back then, I used to live in Southern California, and a brand new Hilton Hotel was going up right across the street from my apartment complex. I was a rookie in the company, and I suppose I didn't know any better, but I wanted to sell that Hilton. At that time, the hotel was just a skeleton, and I drove past it every day on my way to the office visualizing closing that deal. This went on for several weeks. I kept calling, always getting the answering machine or a secretary. Finally, it was two days before Christmas when the project director actually took the call and told me to come out on Friday afternoon, December 24, at 2pm. I'll never forget it. Like most cities, the LA business community closes up like a drum on Christmas Eve. I told this to the director, and he assured me he would be there.

I showed up on time and the joke was on me. His office was in a beautiful complex right across the street from where they were building the hotel. When I got there, the construction crews were gone. Normally the place was so active and noisy, but this

time, you could hear a pin drop. Everyone was gone, and the building was locked. I don't think I have to tell you how much of a bummer that was. I got over it; not quite ...

After New Year's, the division president at 3m announced a huge sales contest for everyone in their six western offices, which included Los Angeles, San Jose, Oakland, Portland, Seattle, and San Diego. First place was a \$3,500 bonus plus all of the commissions that go with that kind of production. We had to hit certain production levels just to qualify. I learned through the grapevine that in the five years they had been running this contest, nobody ever won. Isn't that nice?

Each day, I still saw that Hilton going up, and it was no longer a skeleton. I continued to call for about six weeks, but nobody ever returned my calls. One day, I had enough. I don't know if I got tired of the rejection, if I was curious, or if I just had nothing to lose anymore. I just walked into the office without an appointment and handed my card to the project manager. He floored me.

He looked at me and said, "Where have you been, I've been looking for you!" I was astonished! I asked him about the Christmas fiasco and all of the unreturned phone calls. He just nonchalantly brushed me aside and said, "Don't worry about it."

To make a long story short, I found out this person was the key project manager for 15 Hilton Hotels built in Southern California through the 1970s and 1980s. He had one sound contractor who did every project, but who was now being indicted for income tax evasion and was unavailable for this project. The problem for him was that the drywall people were scheduled to close the lobbies and ballrooms in six weeks, and they didn't even have a contractor lined up.

I guess you've figured out where I'm going with this. My company got the job. Including the security system, this turned out to be a \$100,000 contract. This was back in the 1980s, so a hundred grand meant something. In fact, it turned out to be the largest single contract in the history of the company up to this point. Yes, I did win that sales contest.

One day while working with the project manager, I asked him why he stood me up that Christmas Eve. What he told me, I've remembered to this day. He turned to me and said, "Jeff, you see that I'm in a position

where I'm responsible for millions of dollars and have people coming in and out of my office all day long. Most are crackpots trying to sell me on every damn scheme you can think of." He took a deep breath and after a long silent pause finally said, "What I put you through was a test. I need people I can rely on. Most people never would have come back. But I thought that if you ever came back after all I put you through, the job was yours!"

There you have it. If I ever came back, the job was mine. Only I didn't know it at the time and most people don't come back. I had learned one of the most important lessons in my life.

I told you this story because we've come a long way here. To win the championship, we need to stretch a little more. In trading, you don't need to hit home runs every day. In trading, winning the championship means being able to get into consistent winning situations and to reduce your stop-out ratio. If you are really close to breaking even or just starting to win small, any edge will make a big difference for you. If you can beat the odds of people who don't lose the bankroll and start to turn a profit in the long haul, you are on the road to winning the championship in your own life.

What many Fibonacci and wave analysts teach are the common wave relationships in relation to one another. I also covered this, except that I expanded on that concept by establishing the time factor. Now you have a firm foundation. But as I've stated repeatedly, common Elliott waves don't work all the time. The gap when they don't work is enough to put a dent in your bankroll. Common Fibonacci relationships don't work all of the time either. We need to close the gap for the times when it doesn't work and show you what is going on. That edge may be the difference between winning and losing.

## EXTENSIONS BASED ON CORRECTIONS

There is a vital relationship between corrections and advances. Most of the Elliott material I've seen teaches that there is an extension relationship between waves that is measured from the bottom of corrections. For instance, we've discussed that a third wave will extend 1.618 times the length of wave 1 but measure from the bottom on wave 2.

What we are adding is the fact that waves themselves will be exact extensions of the corrective legs that immediately preceded them. Extensions based on corrections are a natural phenomenon on price charts. However, the subject deserves its own section. These examples are advanced because most of us learned Fibonacci or Elliott by comparing relationships between impulse waves. It requires a different paradigm to compare waves to corrections. Corrections are very complex, and what few people realize is that the next leg of the pattern is going to come close to completing in a ratio in proportion to the size of the pullback.

Want to know the potential of the first leg of a new pattern? Another variation is to look at the final leg of the old pattern. I've observed this phenomenon countless times in all degrees of trend. In many instances, a first wave will be in some Fibonacci proportion to the final leg of the newly completed pattern. In many cases, the final leg of the old pattern is going to have an inverse relationship to the entire move and go the other way after the reversal.

These relationships don't work all of the time, so the contemporary Elliott community gives it lip service, and most other disciplines are not even aware they exist. I've introduced these important relationships late in this book because they are meant to build off every thing else we've discussed here. By themselves, Fibonacci extensions are of a lesser value because they don't work all of the time. However, they work often enough to use as price targets. They certainly support common Fibonacci calculations and cluster with them. Remember, we are finding as many relationships as possible at a common point to find high probability trades. When common Fibonacci relationships don't work, it's usually because an extension is dominating price action. Understanding how extensions work will be the difference in helping you develop from being an average trader to a good trader. It can also be the difference between having a good understanding of charts and a great understanding.

### **Remember**

We are finding as many relationships as possible at a common point to find high probability trades. When common Fibonacci relationships don't work, it's usually because an extension is dominating price action. Understanding how extensions work will be the difference in helping you develop from being an average trader to a good trader. It can also be the difference between having a good understanding of charts and a great understanding.

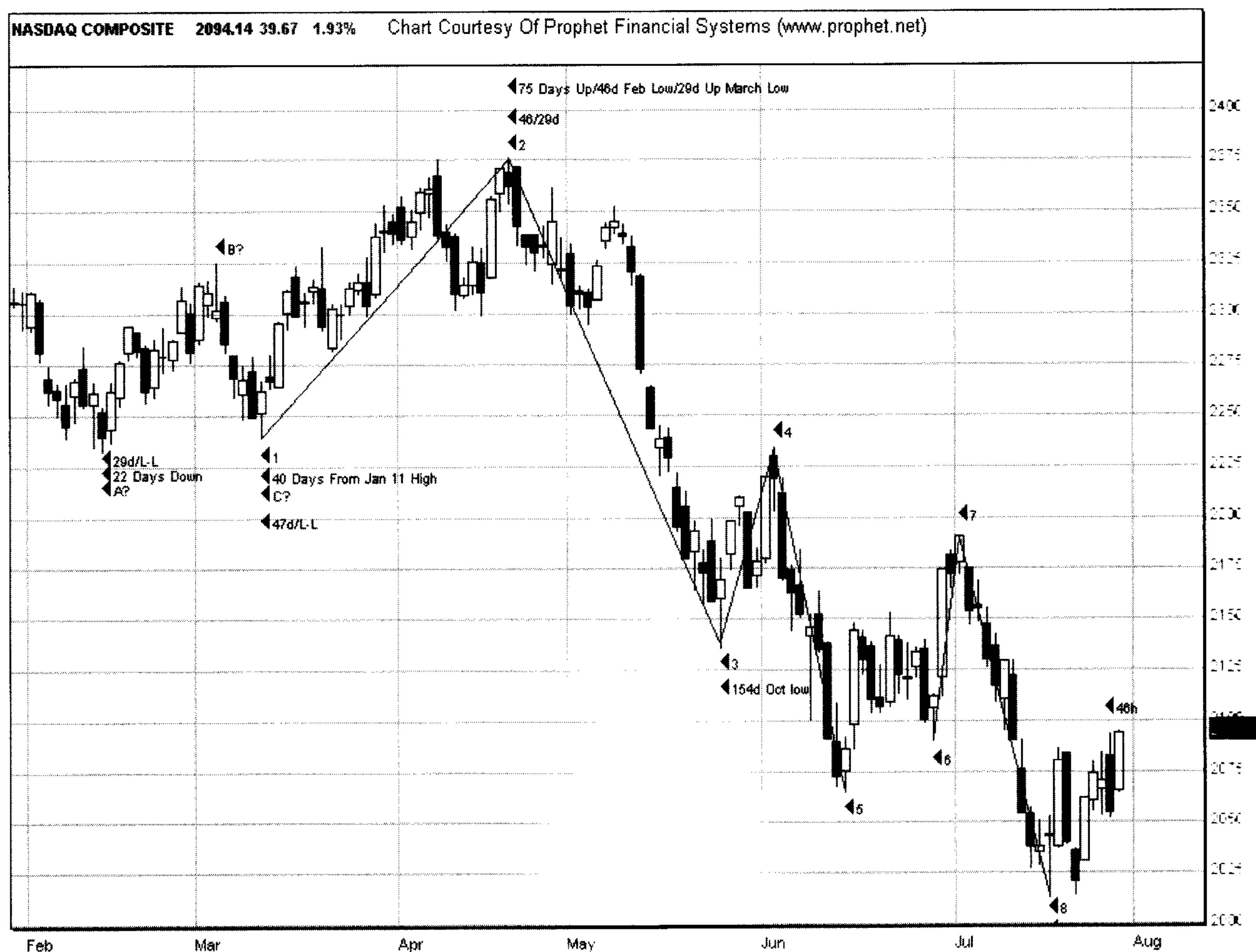


## VARIATIONS ON GARTLEY FOR CORRECTIVE WAVE PATTERNS

The butterfly or Gartley pattern was made popular by Larry Pesavento (1997, 128). Here, we apply variations of the concept and streamline it to many corrective moves. A lot of what is presented in this chapter is now slowly being understood by the Elliott community. Those of you from other disciplines should also be aware of it. These examples are natural universal occurrences and will make a large difference in your understanding of financial markets. There are different annotations on these charts because I've refined them over time—I've kept adding and adding as I saw more examples. We don't need to have the strict specifications of the butterfly to see how these patterns work.

**Figure 8.1**

NASDAQ correction extension



## NASDAQ

Does Figure 8.1 look familiar? This is virtually the same chart we looked at near the end of the last chapter to recognize a near term low at the 4.23 extension level at the July low. I've added trend lines to this chapter to illustrate this key concept. Our first example is labeled 1–2–3 and is the trend line from the final leg up in March to the April high and down to the late May low. What we have is line 2–3 at approximately 1.618 the length of line 1–2. The lower tail dips slightly below the 1.618 extension and becomes the first major low of the downtrend. Later, I'll show you other examples of how that very last leg will morph into a 1.618 proportion on the first leg of the new pattern.

For now, check out these proportions. Look at 3–4–5. See how lines 4–5 are roughly  $1.618 \times 3-4$ ? If we didn't have the emotional reaction near the pivot low, it could have been a perfect 1.618 relationship. Now look at 6–7–8. This is the same relationship. Why are we not measuring from 5? This works likely because 6–7 is the final leg of an ABC up and it is in direct proportion to 7–8, which may very well be the first part of a new move to the downside. We don't know because this chart was in real-time progress as I was completing this book.

How useful would it be for your own pattern-recognition skills if you knew the approximate capability of the next leg down as a correction was just completing? We had that exact condition two times on this pattern. This sort of thing happens every day on every chart. Before we go on to the next chart, go back to the end of the uptrend. Check out B?–1–2 at the end of March. B?–1 has the .618–1.618 relationship with 1–2 up. That calculation caught the final top, did it not?

## Alcoa

We looked at a variation of Figure 8.2 in the last chapter as well. We are looking at one 90-day corrective segment of Alcoa (AA). See how many of these little pullbacks fuel the next leg of the pattern? Is it any wonder why oscillators such as RSI and MACD work so well? They are not shown here, but these oscillators approximate the proper level of where overbought or oversold will signal reversals in any degree of trend. This is precisely why markets don't go in a straight line. It's the corrections in bull or bear phases that fuel the next leg in the advance in perfect preci-

*sion. When does it end? We are deep enough into this book to realize that intermediate legs take anywhere from 61 to 89 days to complete. In this case, we get a larger reversal on the 90th bar.*

Breaking down the action, we see lines 1–2–3. In this case, line 1–2 is the very last leg of a bull phase and sets up a choppy five-wave progression for 2–3, which measures  $1.618 \times 1-2$ . The next progression that works is 4–5–6. Leg 4–5 is the final leg of a small-degree ABC up and sets up the next drop until the end of May, which also measures 1.618. The next corrective wave lasts a full month. Final leg C once again refuels the next drop to the 90th day of this leg, which once again is 1.618 (10–11) of 9–10. For the bounce, leg 10–11 has a direct proportion of  $1.618/.618$  with 11–12.

**Figure 8.2**

Alcoa, 90 day corrective extension segment



Why might this information be valuable? Armed with this sort of pattern recognition scheme, you may be one of the few people playing Alcoa with this information. As it rallies, we see that it takes out the 61 percent price retracement of the 90-day leg down, and the 1.618 target of 10–11 is the exact 78 percent retracement level of the move down. Right on the gap up you can have an idea that the price action is going to take out the pivot high at 10, and you may be the only person playing this chart who knows this information with any certainty.

What else does this information do for you? We spent a great deal of time in this work outlining points in time where we would be looking for the 61 percent retracement level as a point for reversal. When we project this method of relationships to the overall price retracement of the leg down, we see a cluster forming at the 78 percent level, not at the 61 percent level. We can then relax when the 61 percent is taken out. When we get the reversal at 78 percent on the cluster, we know we have a very high probability trade to get short again. Finally, check out 11a–12. If the chart respected that high and reversed on the 78 percent retracement, we would know that we'd get at least a 1.618 move in the opposite direction. If we went short again at 29, the probability is that we would get a drop to 26. Considering the high was 29.50, a 50-cent risk with a \$3 profit potential gives you a risk/reward ratio of nearly 6/1, which is outstanding. If all you did was outline those kinds of setups to trade, you would do very, very well.

Once you recognize this tendency as a high-probability repeat pattern, you'll come to realize it is a swing trader's paradise. What do swing traders look for? They are looking for trades that last anywhere from three days to three weeks. In this 5-month progression, you have no less than six good setups. This is only one stock. If you want to get more precise, you combine this technique with our time factor.

## Amgen

Just to show you the last chart was not a fluke, let's revisit the Amgen chart from the last chapter (Figure 8.3). This chart is a variation of the second-wave correction we saw prior to the big leg up in 2005. Check out the relationships from 1 and 1a going down to October low, which is 2, up to 3 and 4. In the short term, 1a–2–3 is perfectly proportioned as is

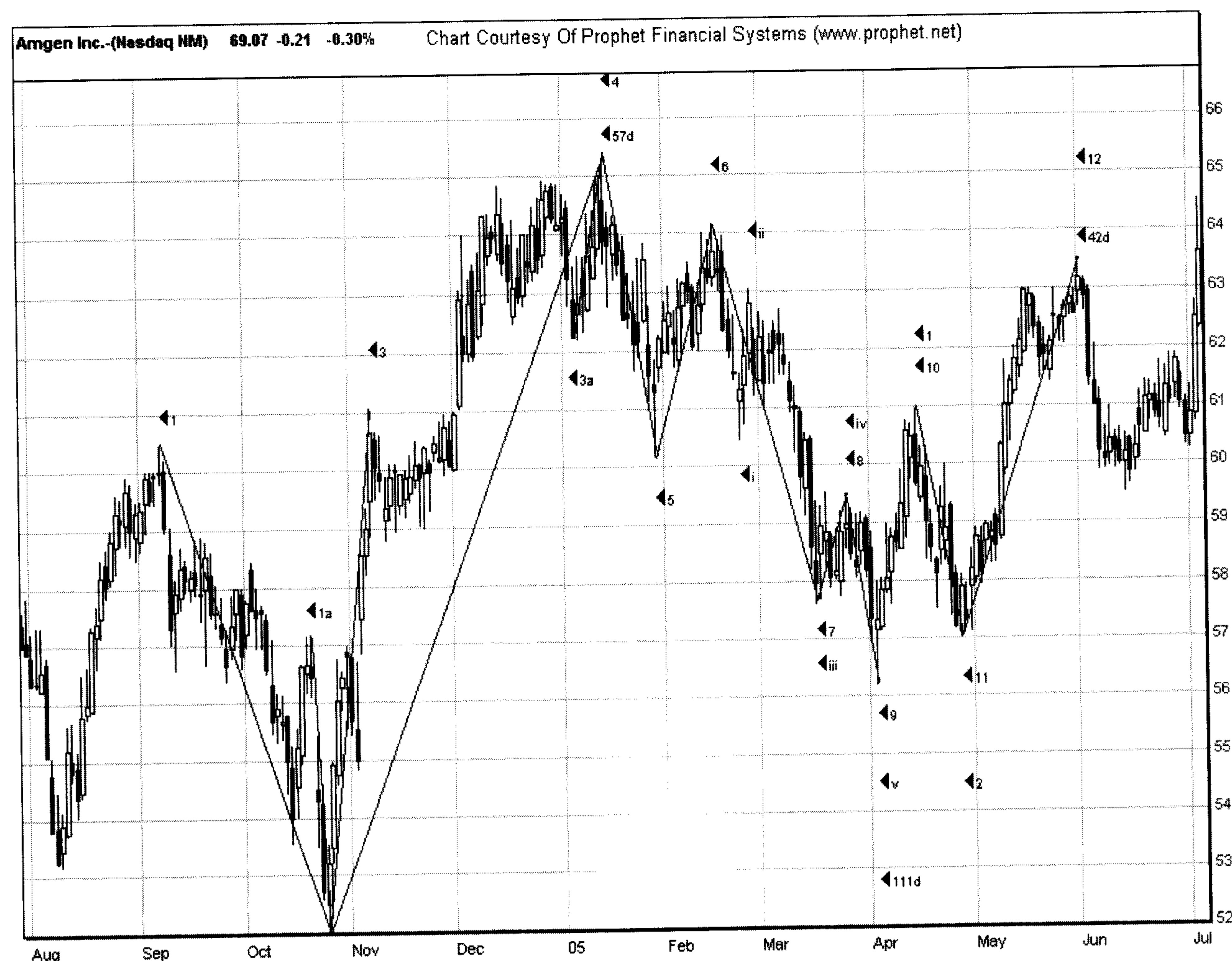


1-2-4. Line 1-2 actually gives us a larger target once the October low is in place. Recall once again the October 2004 low was a major pivot and started the Presidential rally. Is it really possible that while we were in the first leg up between 52 and 57 we could make a projection for a high near 65? It doesn't work every time, but the theme of this book is that tendencies do repeat more often than not. I challenge you to look at charts right now (not in this book) and find for yourself similar relationships. Don't take my word for it. Do your own due diligence. Apply these principles and start to simulate the results for yourself over time. I think you will be pleasantly surprised.

From the January 2005 high to the April low (another key pivot), we had a pullback of 54 days. You can see that lines 3a-4-5, 5-6-7, and 7-8-9 all

**Figure 8.3**

Amgen extension projection



work with perfect precision. On the way up, line 10–11–12 also works perfectly. I haven't outlined them, but there are even more relationships exactly as I've described that work the same way.

## Cisco

Another concept that I've noticed in my research is that corrective waves in a larger trend will give birth to waves that measure 1.618 or 2.618 the size of the correction. This isn't necessarily the end of the trend because what you will see is another small retracement leg that gives birth to a final leg with the same type of relationship.

Figure 8.4 is a chart of Cisco (CSCO). Check out lines 1–2–3. This is a move that bottoms in October. As you can see, the target price for the entire move until April/May of the following year is driven by the final leg down! The final high in April and May, which is a double top, is actually a 2.618 extension of that last leg down. Later on in the move, we have lines 4–5–3 where the final leg 5–3 is also a 2.618 relationship to corrective leg 4–5.

There are many instances on a price chart where the length of the move is going to equal a Fibonacci/Lucas number or some derivative of them. Line 4–5 retreats from 19.43 to 17.82 for exactly 1.61 points. In terms of time, point 5 is the 75th day of the trend. The double top around point 7 hits on day 112 and 25 days later (137), which is a 37-day leg (38–1) and day 62. Everything has a perfect symmetry to it.

On the downtrend, leg 6–7–8 is the last leg of the uptrend (6–7) in which the May high takes out the April high by less than 1 cent. Line 7–8 is a 1.618 extension, which takes us conceivably to the end of an A wave down.

The whole point of this exercise is to show you a different way of looking at the charts as opposed to the way classic Elliott has been taught over the past 75 years. The theme for forecasting as well as projection targets for trading can be seen in the corrections. What I've shown you thus far are not ironclad rules. They

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surprised.

are guidelines and should be taken seriously. This is a chapter on advanced techniques.

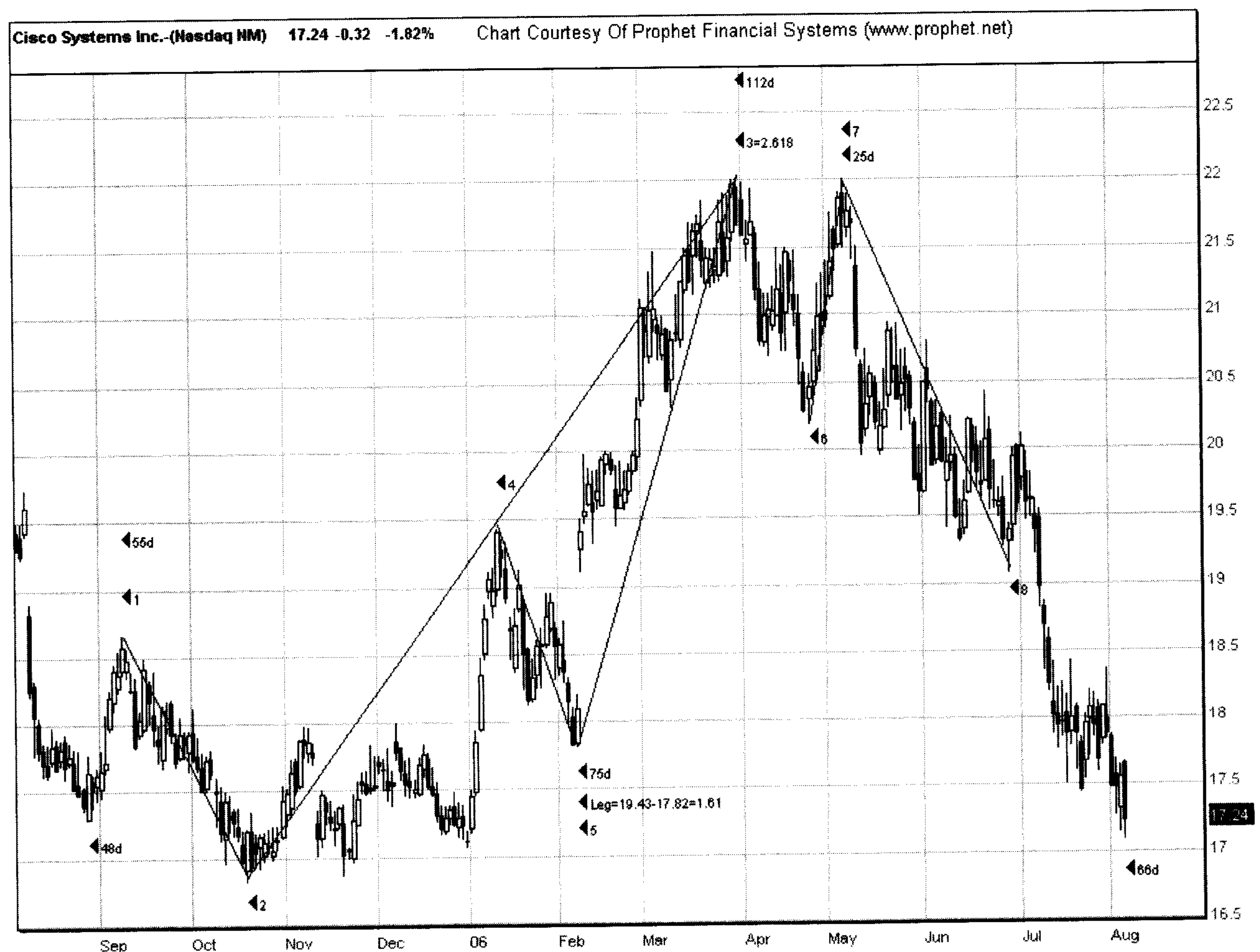
Classic Elliott has taught that advancing waves are the only ones that have relationships to each other. This is simply not the case. These relationships have been on these charts since traders have been looking at price charts. However, only the smallest minority of the trading community is aware of how these relationships work.

## ADDING THE TIME ELEMENT

This is not an academic exercise. What we are exploring here are additional tools to help us understand what is actually driving these charts.

**Figure 8.4**

CSCO extension projection



With greater understanding, your decision-making possibilities are driven less by emotion and more by discipline. We've spent the majority of this book preparing ourselves for turns based on the time factor. Now we can combine the time factor with an intelligent projection technique to gain an incredible edge over other players who are trading these charts.

Take a close look at Figure 8.5. You can make a case that this leg is an ABC correction or even a five-wave impulse. It's irrelevant. If you look at a larger chart, it could even be a larger degree A-wave in a multiyear sideways pattern. I'm mostly concerned about lines 3–4–5. The July to September pullback fuels that final leg up where line 4–5 is a 1.618 extension of line 3–4.

Also, line 1–2 as the final leg of May–July corrective phase gives birth to 2–3, which is a 2.618 extension. There are several important points to note. The entire leg from April to December retraces a larger leg down, not shown in its entirety. This leg up does not have a common Fibonacci retracement level with the top at 97.67 on December 31, 2004. If you take a very close look at these legs, they don't have any other common interwave relationship taught by traditional Elliott. If they don't have any traditional relationships and since it didn't turn according to any retracement level, how can we possibly target a high?

We can do it with the time factor. Look closely and you'll find that this pattern has excellent time relationships. Near the end of June, the bullish rotation and the money move kicks in on the 48th bar (Lucas  $47 + 1$ ). The parabolic leg tops on day 62 and bottoms on day 110, which is a Lucas  $47 + 1$ . Finally, we top on day 155. Without a mechanism like the time factor to target a price high in advance, we are just like everybody else and have no edge over the competition. Notice the price point of where we put in the high. It's in the 89 area, and that's a Fibonacci number, right?

You may be asking yourself, what is the real value of this technique? Is this just some academic scheme to look at charts after the fact to see how it turned out? I trade these charts and know very well what is realistic in real time. Here's my take.

Go back to the end of June where Figure 8.5 turns up on day 48. We already know from the chapter on rotation that we have a nice white candle after a choppy sideways move on the exact right time bar. What

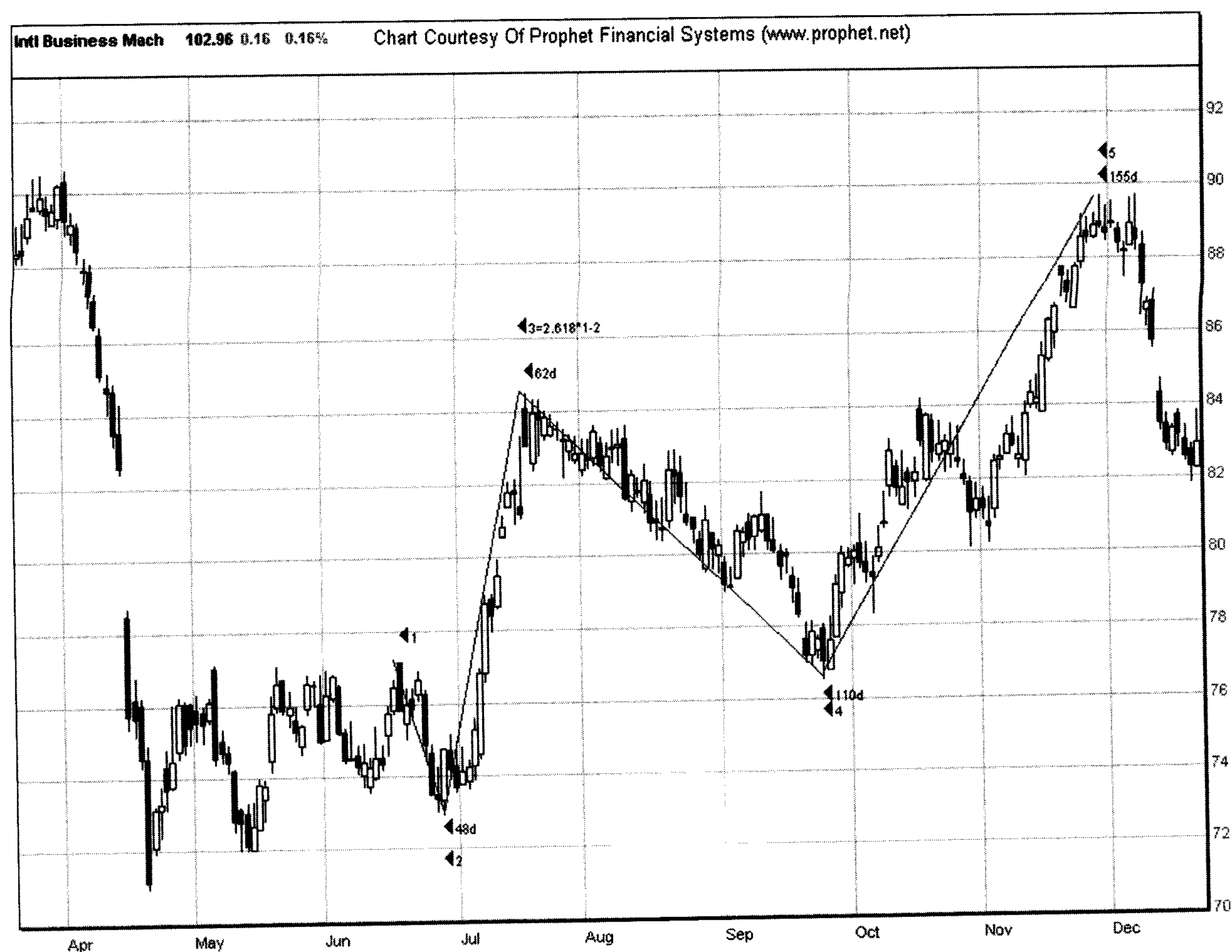


we don't know is how far this move can go. Once we clear through the May–June congestion, we can project a 1.61 extension with the first leg off the bottom. This projection gives us a general area near 83. Look at the April–June, low-to-low cycle. It isn't really clear if we have a complex sideways pattern or a small series of 1's and 2's. As you can see, the final leg of the pullback works perfectly with the next leg up. It goes slightly beyond the traditional Elliott target and nails the position for the high right on the head.

Turning to the next leg up, we are really in the dark as far as projection goes because the chart tops in a very confusing place. The real value of this methodology comes when we retest the 84 area in November: we can make a projection, based on the pullback, that this chart has a very

**Figure 8.5**

IBM correction extension projection



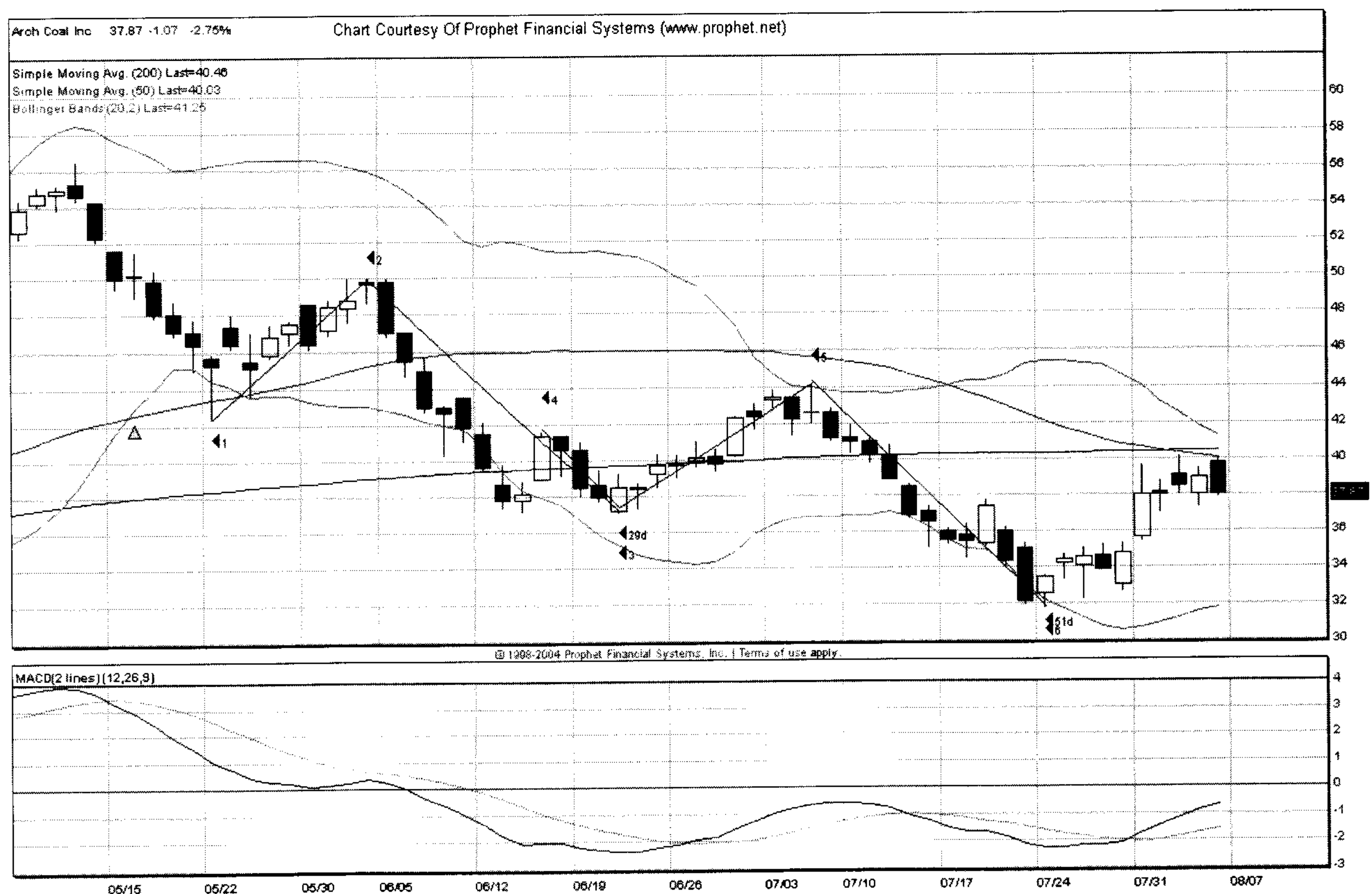
strong possibility of topping in the 89 area. Armed with this knowledge, it would have prevented you from initiating a position as no doubt sentiment must have turned very bullish once you went into the upper 80s. You would start to keep a trailing stop that would let your winner run if you were already in the stock. Once it turns down (if you haven't already been stopped out), you may want to consider going short when you see all of the relationships lining up.

## Arch Coal

The next case study is a five-wave progression in Arch Coal (ACI). As you can see in Figure 8.6, there is a slight overlap on the top of the fourth wave (07/03) with the bottom of the first wave (05/22). Does it really matter? The point is that leg 2–3 is a 1.618 extension of correction 1–2. Leg 5–6 is a 1.618 extension of leg 3–5. None of the traditional Elliott relationships work on this chart. For good measure, small leg 4–3 does project the

**Figure 8.6**

Arch Coal extension projection



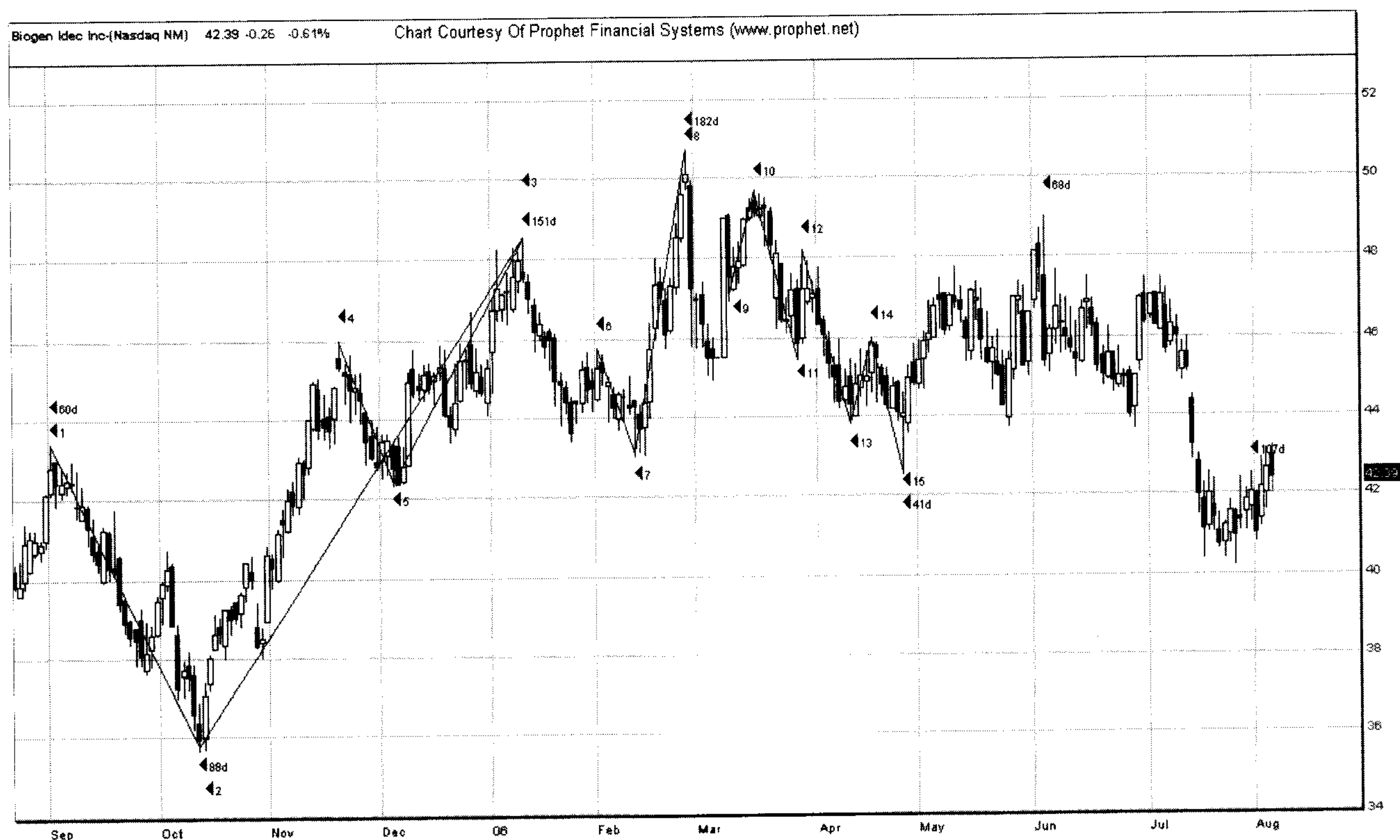
top of the fourth wave at price point 44 as another 1.618 price extension. Since that doji hits on day 39 off the top, it does make an excellent short if you knew to look for it.

At the low, we don't have a perfect number of days to the entire leg (51), which may mean this progression is only part of a larger move to the downside that is still in development. The candles are suggesting at least a low and the possibility of a small swing trade long as the fifth bar off the bottom is a nice white engulfing candle. If you took the gap up the next day and rode it for a couple of days, you likely caught at least a couple of points because this chart now projects to 42 based on a 1.618 relationship with the last 4 bars down from the week of 7/17.

## Biogen

The next case study (Figure 8.7) shows us more of the same. This time the subject is Biogen (BIIB). Briefly, from September to October, line 1–2

**Figure 8.7**  
Biogen, various extensions



projects a potential high at 3 in January 2006. In this case, it so happens we do have a common interwave relationship as the December to January rally has an approximate .618 relationship with the October–November leg. As opposed to an extension, Leg 1–2 with its projection as far as 48 gives us advance notice of where the third leg up in the sequence is going to end. Line 4–5 also projects a top at 3. This is a good cluster and sets off a 5-point ABC sharp drop. But the pattern isn't done. The leg to the February low has common Fibonacci relationships as the C leg is  $.618 \times A$ . We have common Fibonacci relationships mixed in with the advanced techniques. Nobody said this is a piece of cake. As you can see, the January high is taken out at the end of February to point 8, which has perfect precision with line 6–7. Finally, the turn comes, and we have a progression from points 9 to 15, in which every leg is perfectly related to its small-degree correction along the way.

## Starbucks

Figure 8.8 is a wonderful example of a great setup with Starbucks (SBUX). We measure out the correction and see the extensions. This chart bottoms out at a 2.618 extension of a B, or second, wave. I'm starting to put in Fibonacci extension lines in place of the straight lines you've seen in the past few charts. You can also see that the whole trend off the top completes in a perfect 62 days. Obviously, not all setups are as clean as this one. However, when you see something like this, you should go for it 100 percent of the time. As far as pattern recognition goes, you can't beat this; you will be getting into this stock at the highest possible risk/reward ratio possible.

It's worth mentioning here the other principle concerning the relationship of final waves to first waves. Check out triangle 1–2–3. As you can see, the final leg up, which is 1–2, has a  $.618/1.618$  relationship with the first leg down of the new trend. By the way, the first leg down completes in 13 days.

Let's say you went short at the top. Armed with this relationship, when you see the first leg hitting and reversing on the target, is this your clue to take your profits? When you see this happening on the correct number of days, bells should be going off in your head to take your profit. Want to get back in for the best part of the move? Check out triangle 4–3–5, which

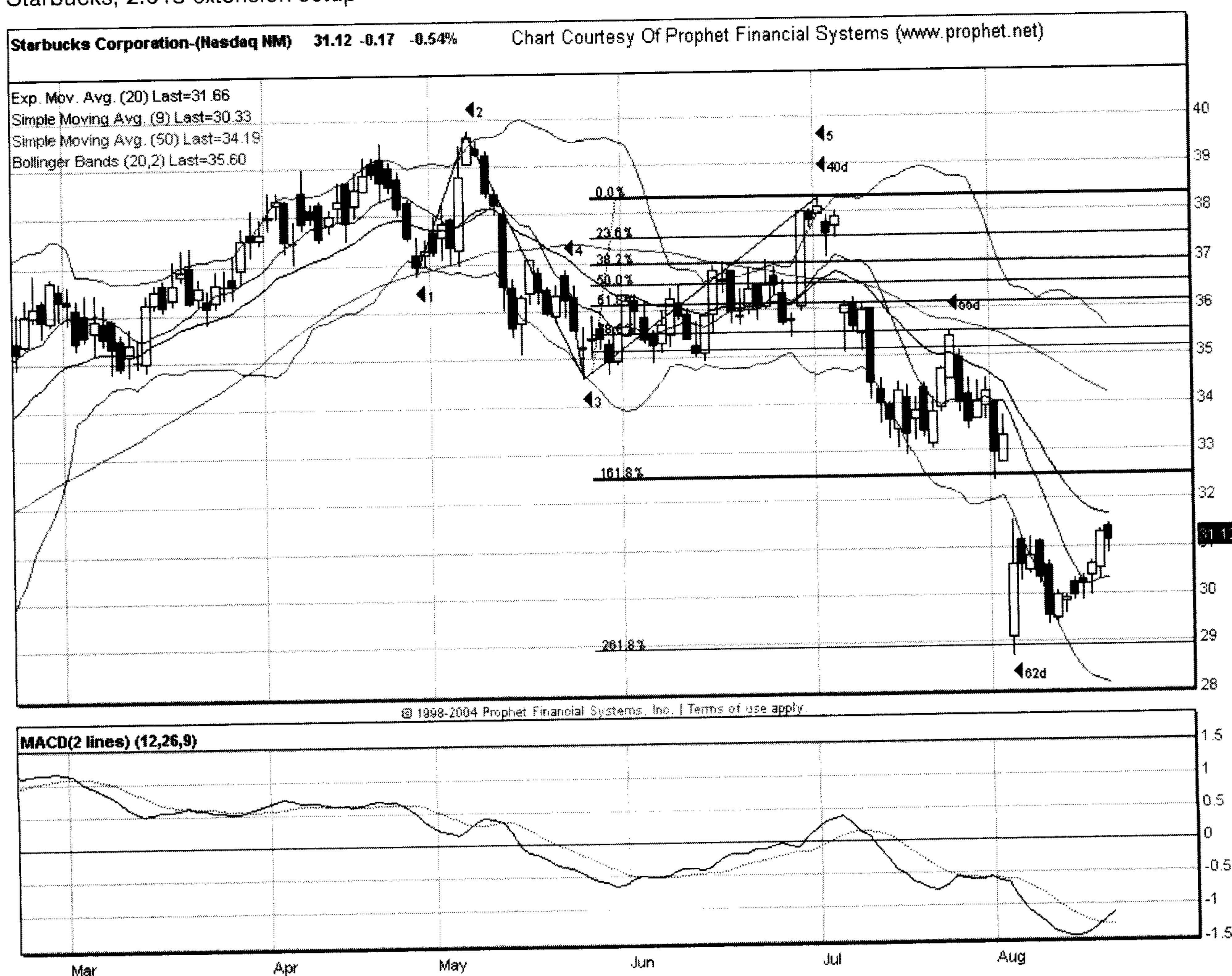


starts near the end of May, and you'll see lines 4-3 (hard to see) have a .618 relationship with 3-5, which is the B wave. If nothing else, that is your pattern recognition clue of where the B wave might end.

Remember, looking at these charts in real time is very different from seeing this after the fact in this book. Once the correction is over, you can do your drawing extensions to see the potential of the down move. Could it have ended at the 1.618 extension after day 60? Absolutely! This is an art, not a science. You didn't get a really good reversal on day 61. You needed to see more in terms of the candle, which as a harami didn't even cover half of the black candle the day before. Day 62 brought us the gap down to the 2.618 extension target. As you can see, day 62 was a big white

**Figure 8.8**

Starbucks, 2.618 extension setup



candle, which implies the gap from day 61 fell from just below 33 all the way to 29 on the open and moved up right from the start. Other traders likely had no idea what was going on.

## Yahoo

Pay attention on Figure 8.9 to the B, or second, wave of Yahoo from June to September 2005. As you can see, the corrective wave has an exact relationship to the top. You can do all of the standard interwave calculations that we did earlier in this book, and none of them are going to work, as the low in February 2005 to the June 2005 high has no obvious relationship with the September low to the top. This chart represents the gap in Elliott I spoke of earlier.

So why didn't I just cut out the first 100 pages as well as the first 75 years of Elliott methodology? Because they do work. But, my job here is to take you to the next level. If you were not taught all of the basics, you would not appreciate how advanced some of these techniques really are. I am a trained Elliottician, and I went for years using basic Elliott calculations before I stumbled onto this methodology, just like I did with the time sequences. I know I have a whole new appreciation for the material in this chapter simply because I spent years doing it the old way.

On a time basis, the first leg up is 72 days (half of Fibonacci 144). The pullback is 74 days but ends on Lucas derivative 146, which is also Fibonacci 14.6%. The final leg up is 75 days and rolls over on Lucas 76 right on the 1.618 extension point.

At any point during 2005, if you called your broker and asked what their financial analysts would be calling for as target prices based on the fundamentals of the company, what do you think they'd tell you? You would get nebulous numbers based on multipliers of optimistic earnings projections or p/e ratios. Am I right? Would they be able to give you any idea when you should buy or sell this stock? The funny thing about all of this is just when the correction would be ending; they might even put out a sell signal on the stock. Once that final leg up kicked in along with the rest of the market how many of them would be able to pinpoint a turn at 43.60? For that matter, how many other traders would be able to make that projection? Not many, I'm sure.

## EXTENSIONS OFF TRIANGLE BREAKOUTS

We've all been taught that when you take the thrust measurement for a triangle, you can make a high-probability projection target for the top. You and I know this doesn't always work. It works mostly in fourth waves as a projection for the end of the fifth wave. But, what happens when the triangle kicks in as part of a B wave in an ABC sharp move? Many times, we'll have an A wave that retraces 38 percent of the preceding move. Does that sound right? Sure it does. What happens when we get a triangle for the B wave? You know there isn't a lot of room for a thrust measurement because we can't take out the prior low, can we? Don't we also see many a

**Figure 8.9**

Yahoo, 1.618 extension



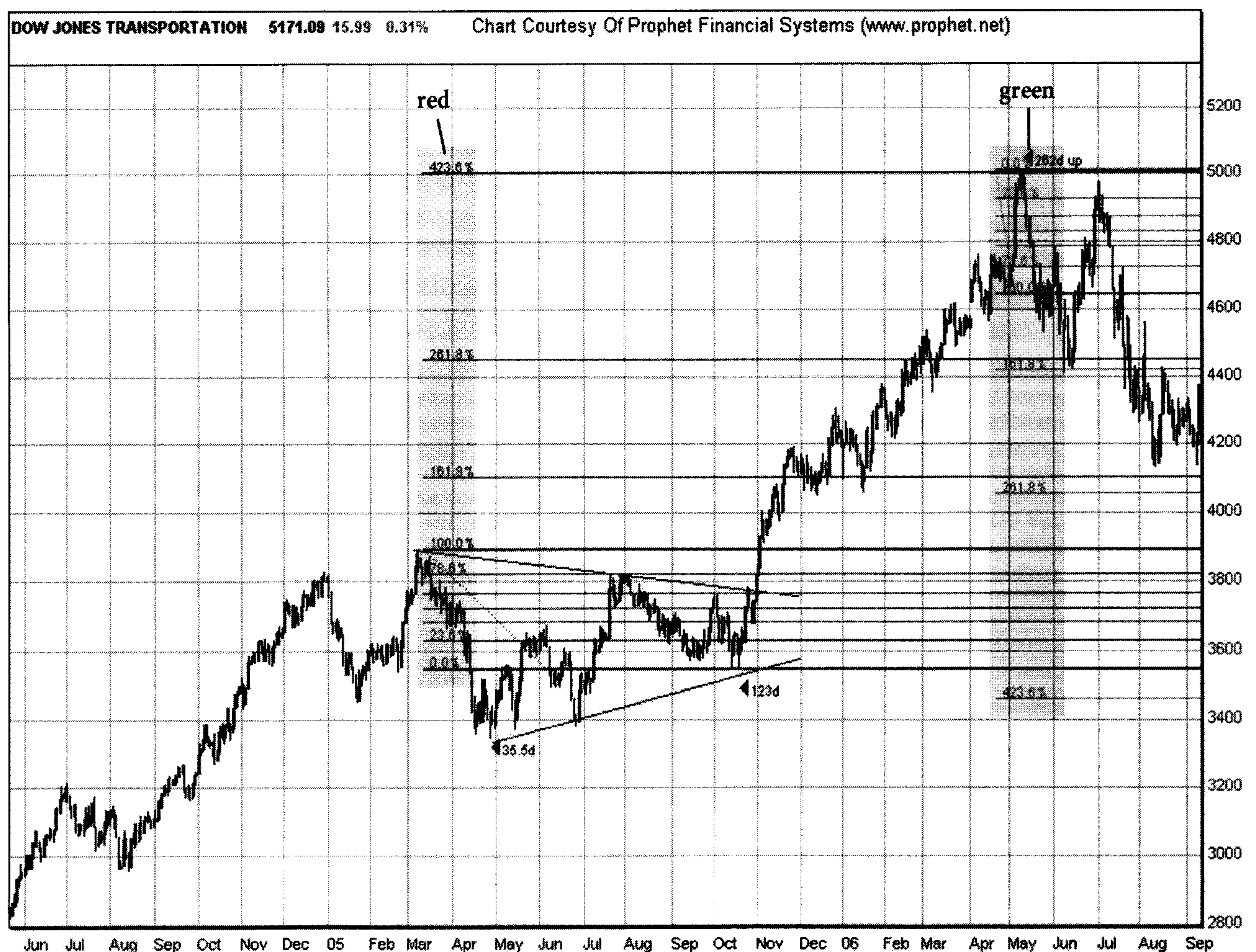


C wave that retraces more than 61 percent of the leg it's trying to correct?  
So how can we make a projection for a high?

The answer might lie on charts like Figure 8.10. This is a chart of the Dow Transports. We have a 7-month triangle that absolutely blows the thrust measurement calculation out of the water. Look very carefully at what I've done here. I've measured the correction from the start to the end. Let me say that again. See the high above 3800 in early March 2005? Instead of measuring from the high to the low, I measure from the start to where it looks like the E wave is ending. In this case, it breaks out on the 123 day window off the April 2005 low and finally tops on the 262 day at the 4.23 price extension. When we measure from the start to the end, we can see

**Figure 8.10**

Dow Transports, triangle extension

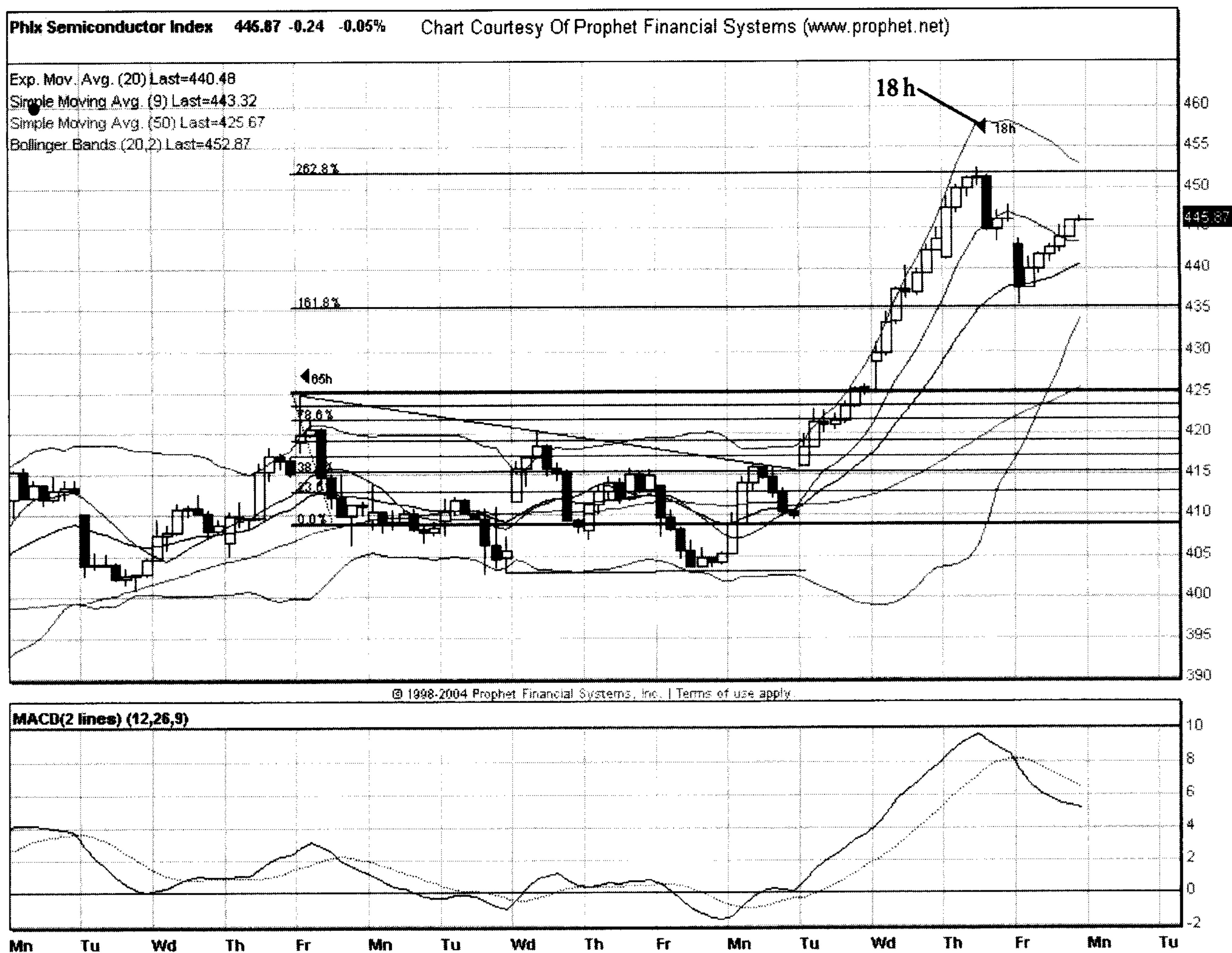




where the extensions fall. It blows through the 1.618 and 2.618 extension points. When the 2.618 extension is taken out, there is your clue to look for a 4.23 extension. As you can see, it tops right there! I can assure you it's not a coincidence.

Now look at the last spike up just above 4600 in May 2006. This leg is a perfect projection for the end of the first leg to the downside after the reversal. It nails it almost perfectly on the 21st day of the trend. As we measure the B wave after the top is in, a good projection would be near that green 2.618 extension point above 4000. By the time this book is out, we'll see just how close we get.

**Figure 8.11**  
SOX triangle extension



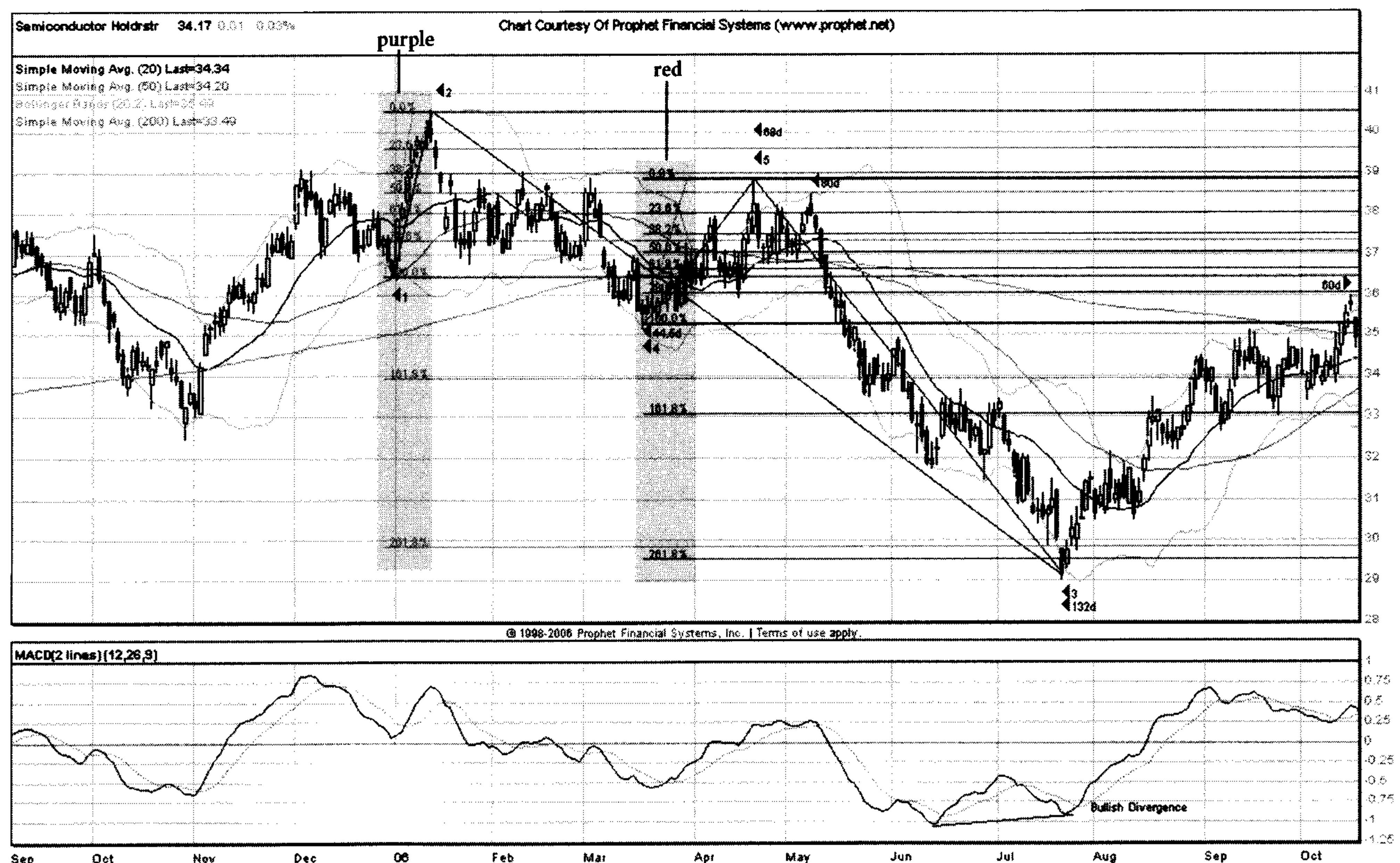
Does this work on other time frames? Here's an hourly chart of the SOX (Figure 8.11). As you can see, once again I've drawn the lines to cover the start of the triangle to where it ends, not the bottom of the correction. You can see we get a small degree trend change (it's a small degree triangle) at the 2.618 extension point. The leg is also 18 hours up.

## LARGER DEGREE PROJECTIONS

The final few charts of this chapter scrutinize some larger degree projections. Figure 8.12 is a chart of the Semiconductors Holder Trust (SMH), which gives some very good projections for the 2006 bear phase. On this chart, we have two projections as seen in red and purple. Check out the purple retracements that line up with triangle lines 1–2–3. This is the last leg up of the rally phase and where the 2.618 purple projection line falls with line 2–3. Now, check out the correction in March–April 2006. This lines up with the red retracements and the triangle lines 4–5–3. You can

**Figure 8.12**

SMH Bear extension and time cluster



see where the red retracement lines project. The bottom point is a cluster of the two price projections and price action turns up on the 133 day of the trend right after the NASDAQ bottomed on the 61 day (see Figures 8.1 and 8.13)

Figure 8.12 highlights several of the principles we discussed earlier. First is the concept of corrections driving the price action. Then, we have a cluster where the last wave of the old pattern projects a target for the new pattern. As you can see, the last wave concept should be used as a guide simply because we really don't know if it's going to project to the bottom of an A wave or the bottom of something much larger. Unfortunately, we don't have the answer to that. All we know at this point in time is that the relationship of the final leg is going to be meaningful in the new trend. This methodology, however, becomes very useful by the time we get to June/July 2006 because we can get a jump on the competition on where there will be a high-probability low. Understand at first, this will be a bit confusing; however, the more you work with this concept, the more you will see its application and how precisely it works on a variety of time frames. For now, I want you to get familiar with this concept.

I believe these final charts go a long way to help in our understanding of forecasting financial markets. Figure 8.13 is a chart of the NASDAQ from the January 2005 high to the April 2006 high. We already covered the back end of this chart earlier in the chapter. What is most fascinating to me is the relationship of the correction from January to spring 2005 in relation to the rest of the pattern. We are not going to cover the time relationships again because we have already done an exhaustive job earlier.

Ultimately, what finally turned this chart in terms of price was the relationship of the corrective wave. Recall, on the first day of trading in 2005, the chart topped at 2191 and finally bottomed at 1889 for a move of 302 points. When we take a perfect 1.618 and multiply it by 302, we get 488, which would have taken us up to 2377. We topped at exactly 2375.54 or 1.46 points short of that target relationship. You can go over this chart, and you will not find another interwave calculation that comes as close as that one. There are a few others that do come close, but not with this type of precision. As far as I'm concerned, the NASDAQ high in April of 2006, in addition to all of the time relationships, turned precisely on the relationship to the 2005 pullback leg. As you can see, there are several



Finally, Figure 8.14 is the chart of the NASDAQ bear market from 2000 to 2002. The ultimate B wave of our time spanned from May to July. There was a retest close to the high with the failure in September. I've drawn three sets of retracements. The first is that larger pullback from that summer and two more from early 2001. This illustrates that when we take either a 1.618 or a 2.618 projection from the top of these corrective waves within the larger trends, we come to a close estimate of where the final bottom actually traced out. When we take either the 2.618 or 1.618

NASDAQ Jan 2005 high until April 2006  
high various projections



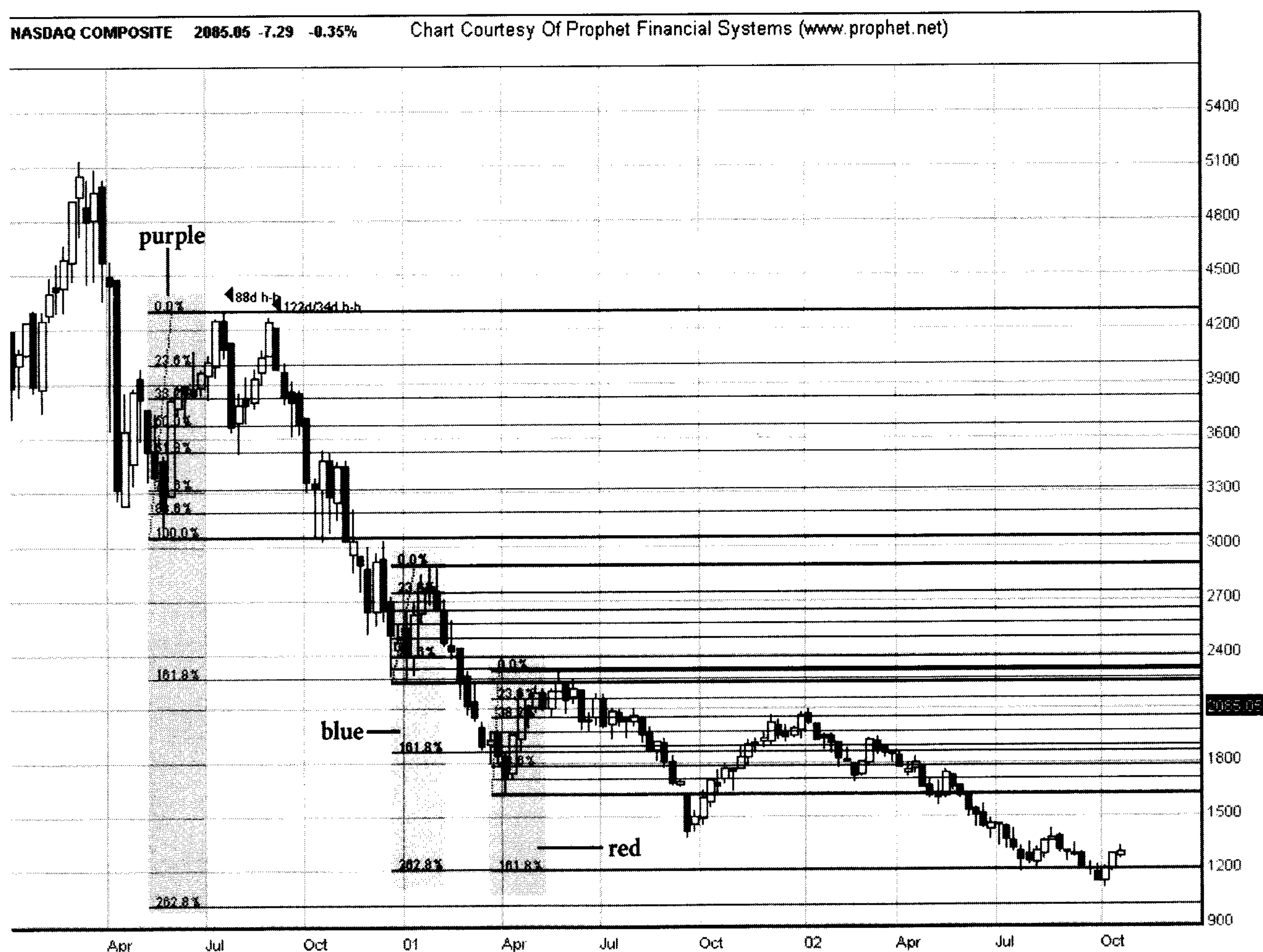


extension of these various rallies, we come up with three target prices for a low which are 1181, 1025, and 1214. The final low was 1108, and all three are within 100 points of the final bottom, give or take a few points.

This methodology actually gives us a better estimate for the low than traditional Elliott calculations. If we take traditional Elliott calculations, we take the top at 5132 and subtract the May 22 low of 3042 to yield 2090 points. When we apply the 1.618 extension to that figure, we get 3381 points, which subtracted from the summer high of 4289, yields a final bottom at 908. Each of our three cluster points gets us statistically closer to the final outcome.

**Figure 8.14**

NASDAQ bear market extension projection



Along the way you can see that the 1.618 extension of the B wave took us exactly to the January 2001 low. If you recall, that was the exact point when Greenspan announced a surprise interest rate reduction, which wasn't at a scheduled Fed meeting. Whoever was short at that point in time was the victim of a very intense bear market rally. Not only did this technique give us an excellent estimate for the bottom, but it also gave us advance warning of a potential sharp reaction in a bear market on the purple 1.618 line. I haven't included all of the relationships on this chart, but there are other instances where the 1.618 extension of correction caught smaller degree bounces along the way. Do you still believe that news events rule the waves? Or do you now consider that waves and their calculations somehow manifest news events at precisely the correct point in time on a price chart?

**Figure 8.15**  
BHP 89 month cycle



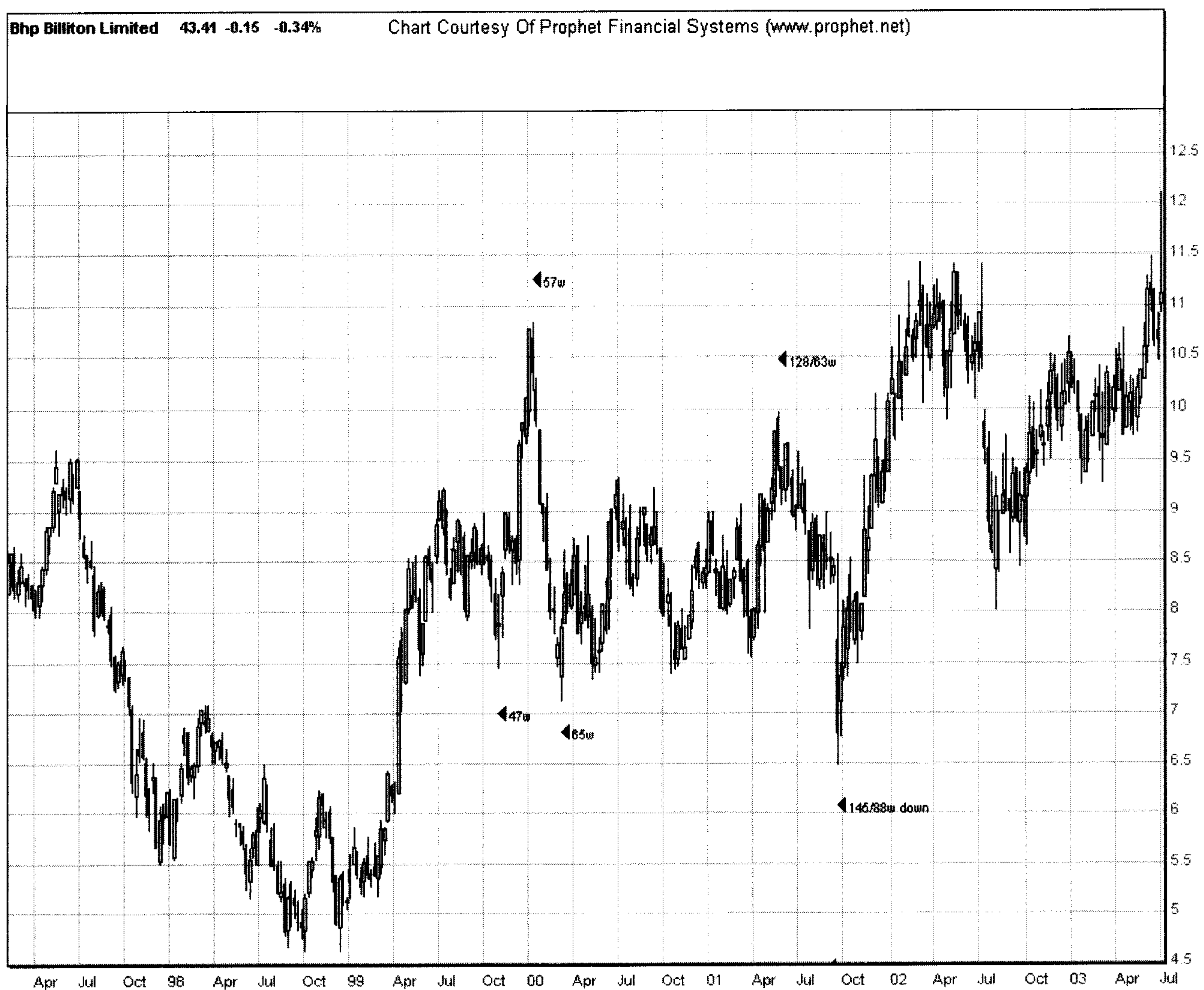
## ADVANCED CALCULATIONS

To conclude this chapter, I'm going to change gears and show you some really sophisticated calculations. This next case study falls under the category where we really don't know the ending. But it certainly is interesting to see how we've come to this point. I've included this study on BHP because it is a very important stock that is traded both in the United States and in Australia. But there are some important lessons to take from this study. I'm going to show you the progression from the bottom on a weekly and monthly time scale. This is the NYSE version.

There is nothing special about the first chart, Figure 8.15. All it shows you is that from the bottom to the steepest correction since 2001 equals a total

**Figure 8.16**

BHP highlights the first stage of the move





move of 89 months. It gets more interesting when we scale down to the weekly charts. Figure 8.16 highlights the first stage of the move. You can see we have some good time relationships. The highlights are a pivot in week 47. The first major pivot is in week 57, which doesn't mean all that much. However, the pullback ends on the 145th week of the overall trend and is 88 weeks down. This chart gets even more interesting when we add the information up to 2007 (Figure 8.17).

Basically what happens is this chart tops in the 387th week, which doesn't appear to be very significant.

However, here's what happens when we throw in some calculations that are beneath the surface. The bottom of this chart is at 4.6181, and the

**Figure 8.17**  
BHP 89 month cycle





**Trader Tip**

The completion is what we are looking for to show us a trend has likely turned, and you should be able to figure this out before price action gets to a moving average. Seeing calculations in clusters of both price and time that resemble Fibonacci or Lucas derivatives is a strong indication that something important is going on.

wave 1 top is at 10.841 according to my data feed. That gives us a range of 6.22 points. The wave 2 low is 6.48 and the 2006 high thus far is 50.74, giving us a range of 44.26. When we divide 6.22 into 44.26, the result is an extension of 7.1157. That means wave 3 is 7.11 times the length of wave 1. When we add in the time calculations, we have a 57-week first wave and a 242-week third wave. When we divide 57/242, we get a .2355 ratio (just shy of .236 or a 23.6 derivative), and a 4.24 time extension that is a hair beyond 4.23.

Finally, at the time of editing, we had a 20-week correction where prices bottomed on the 262 week off the September 2001 pivot low. It has since gone on to create a new price high, which means our 7.11 ratio above led to the largest correction since 2001.

These are just a few of the calculations hidden within these charts. The last calculations I've given you would be very difficult to trade, which is why I left them out of so many of the other charts in this book. However, if you are looking for an edge to confirm a potential intermediate-term change of trend, digging deeper for these type of calculations will help you realize when there is something larger going on. If the calculations don't just jump out at you, this sort of detective work usually will produce some kind of completion.

The completion is what we are looking for to show us a trend has likely turned, and you should be able to figure this out before price action gets to a moving average. Seeing calculations in clusters of both price and time that resemble Fibonacci or Lucas derivatives is a strong indication that something important is going on. It all depends on how deep you are willing to dig.

I think you are starting to get the idea. Although I haven't included them, there are also excellent examples on both the Dow and S&P 500 bear market charts from 2000 to 2002. Those charts were choppy than the NASDAQ and, in quite a few instances, the exact point of where an intense bear market rally would commence could be anticipated in advance in terms of both price and time.

How do you put all of this together? The theme that I've discovered is that nothing works all of the time. You should continue to look at common Fibonacci interwave relationships. Realize, from what you've seen here, they don't always work. When they don't, now you know why. Always keep track of the corrections because interwave relationships will tell you where a chart can reverse. Time relationships tell you when. And, as we've stated before, some setups are obviously better than others. The very best setups can be seen on the Starbucks chart and on the SMH chart.

The whole idea of this work is to reduce the subjectivity of Elliott as much as possible. I feel this chapter goes that extra mile and fills in many of the gaps not filled prior by the time dimension alone. Is this a lot of work? Sure it is. You could also spend a lot of time and energy not doing the right things. Here, at least you will have the understanding of what is really happening. You will be able to recognize patterns exactly for what they are and take advantage of them.

Realize that many setups are not going to look like Starbucks or the SMH. That is precisely why you want to use all of the tools presented up to this point. There is always going to be some calculation or some tool that is going to help you recognize the pattern better than the competition.

What you should take away from this chapter is common Fibonacci/Elliott interwave relationships do work. When they don't work, we need another methodology or we will be lost. I want you to start training your mind to look at charts not so much in terms of the advance but in the relationship of the correction to the advance.

With some practice you will be able to make more accurate target projections that are weeks or months down the road. If we are in a powerful trend and the 1.618 extension doesn't work, have confidence that we are going to the 2.618 extension, or the 4.23 marker. Sometimes they will defer to the common relationships that you've worked with for years. Other times they will all cluster together.

The whole idea of this book is to look at charts in new ways. I could never look at another price chart without keeping track of the bars. However, if you only keep track of the bars in real time you will see charts elect to bypass important numbers. As we covered in the time chapters, you've

been in a position to see that important number bars are passed. Why? I think we answered that question in this chapter. Corrective legs that act as Fibonacci percentages do act as magnets. As you learn to do these projections, your precision will grow exponentially.

In closing this chapter, I covered everything you need on a technical basis. The rest is up to you. The most important psychological trait you will need in order to make these tools work for you is patience. When I first started trading this methodology, I was stopped out a lot. I would anticipate the time bar and take the trade, and many times it didn't work. It was only when I began to wait for the candle formations to validate these time and price clusters that things changed for me. If you don't know anything about Lucas waves or time sequences, it's one thing to try to put on a trade. Without the knowledge of this new "language," one spot on the chart isn't very different from another spot.

When you start working with the time sequences you will become fascinated that the chart actually did what it did. You will become so excited that your first inclination will be to start pulling the trigger all over the place. Don't do it. Wait for better-looking setups. It's tough to have the patience to wait. Your natural inclination is to think you are going to miss a big move. So what if you do? There are always more opportunities down the road. It's better to get a good setup and protect your bankroll than to bleed the account on mediocre setups. Draw your extension lines and keep track of the bars. You will come to anticipate a turn on a 47–15 minute cycle if you are an intraday trader. You will anticipate the 61-day cycle turn if you are a swing trader. Don't take action until you see the candles confirm your various price and time cluster points. When things do line up, absolutely pull the trigger. You are seeing what you are seeing. You will come to trust the chart and the methodology. When you do pull the trigger, have the courage of your convictions to stick with the trade. What starts to happen over time is that you are going to have lots of fun! How do I know? All of this has happened to me!

## 9 | TIMING THE FOREX MARKET

Everything moves in cycles. One of the greatest eras for the stock market was the bull market from 1982 to 2000. I wouldn't say we won't see such an era of excitement for stocks ever again, but history has shown us the mania for stocks comes about every 75 years or so. Although we had a bull market for stocks that ended in 1966, it didn't come close to the excitement of the 1920s. Let's just say there are many correlations between the mania for stocks in the late 1920s and the late 1990s. When the NASDAQ bubble burst, many participants were removed from the market and will never be there again.

Some of these players who escaped with their bankrolls migrated to the real estate market, whereas others switched to precious metals. Others switched to the Forex market. Although the NASDAQ volume is nearly 2 billion shares a day, Forex trade averages 1.5–3.5 trillion dollars per day. It is a huge market where players have easy access to any number of different currency pairs.

It is with this in mind that I add this chapter. Mind you, if you need a primer on pips, spreads, or any of the other basics involved with the me-



chanics of the trades, this isn't the place. There are other excellent books on the subject. Some of them suggest that following fundamentals and news events are important to your success. I won't dispute that here, but I won't cover that material either. I will tell you the same thing I said about the stocks. I believe everything you want to know about any financial instrument that has enough liquidity to be traded by the masses is right in front of you on the chart. What we will cover here are the same methods that are included in the rest of the book. If you rely exclusively on fundamental analysis, you are likely to get killed. It will give you some idea of the larger trend, but is useless for specific entries and exits. There are new players in the Forex market all the time. What these players need is a sound foundation and an advanced education to understand how the markets work.

My disclaimer is that I don't claim to be an expert on the subject of Forex. However, I can tell you that I've gone through an extensive research period to show you that the very same cycles that work on the other instruments also work on currencies, whether they are currency pairs or futures contracts. What this research shows is that these cycles can be effective tools in navigating these fairly volatile markets. Those of you who trade Forex will continue to study news events and fundamentals. I have my own personal bias on that as a technician. What I'm doing with this chapter is showing you how you can improve your own precision. This book is not so much about telling you what to do; it is a guide as to when to do it.

The major difference is that the Forex market is a 24-hour market, and the bars that we count on stocks (which are open from 9:30 am until 4:00 pm Eastern Standard Time) are just counted on a continuous basis. This means that there are lulls in activity due to different markets in different parts of the world. The Forex trading day begins at 5:00 pm, U.S. Eastern time zone on Sunday, which lines up 4 or 5 hours behind Greenwich Mean Time (GMT), a central point of reference for traders around the world. At 5:00pm, it is already morning in Australia. Volume may be good in Sydney at that time, but it does not crank up until Tokyo, London, and New York wake up. So whichever market you are trading, be cognizant of the fact that better setups occur more frequently at certain times of the day.

## EXAMINING THE CHARTS

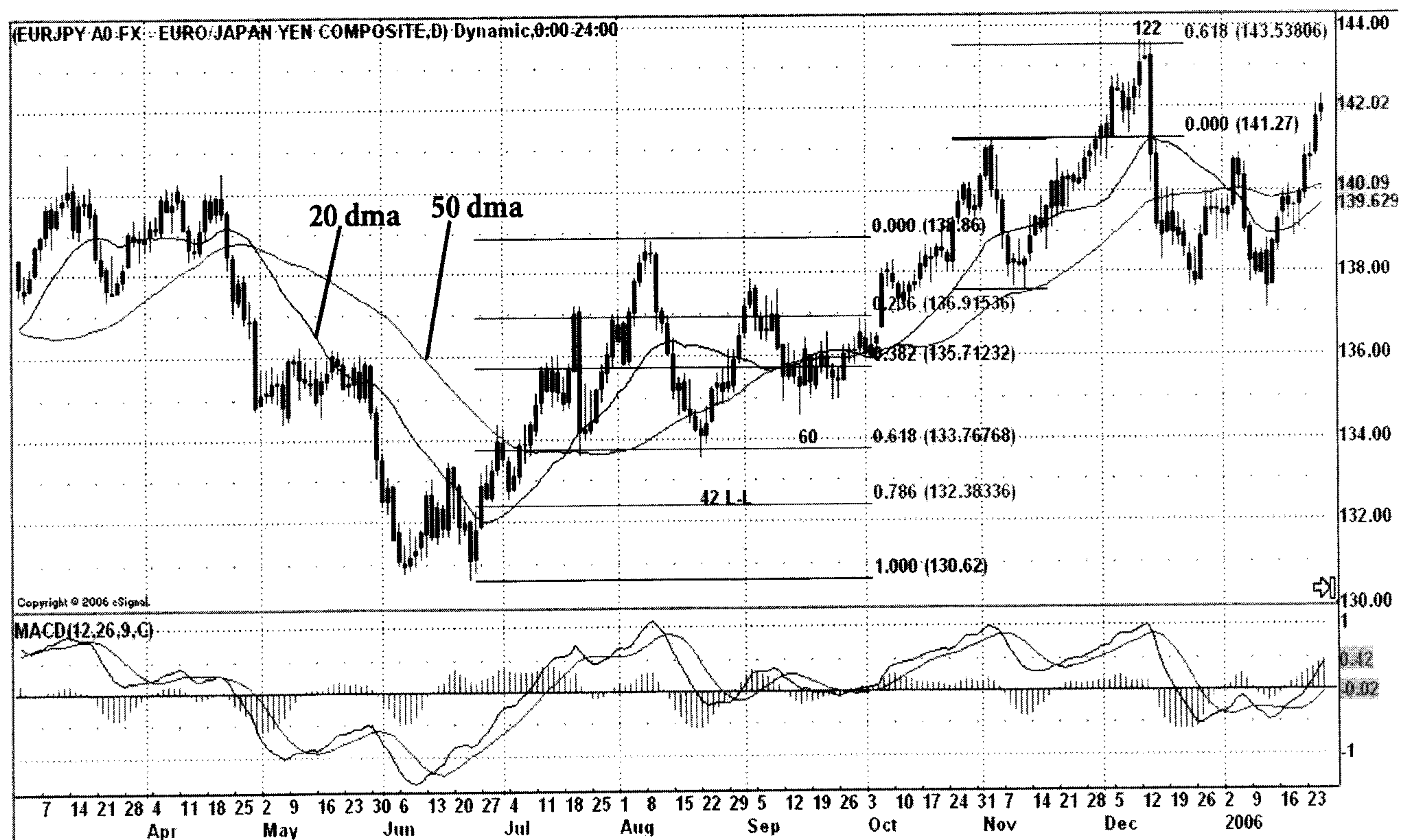
For those of you who trade Forex exclusively, all you really have to do is follow everything you've learned in this book. This chapter will give you a few examples so you can know with confidence that the time factor works here as well. It's very important to see a methodology over and over before you begin to trust it. I'll give you examples on a variety of charts so you can have the same confidence the stock and commodities players have. If you already have good technical indicators, great!

### Euro/Yen

Our first set of examples comes from a case study of the Euro/Yen pair. Figure 9.1 is a daily chart covering most of 2005.

We've imposed the MACD and the 20- and 50-day moving averages on this chart. This is a good uptrend and there are two key points I want to

**Figure 9.1**  
Daily Euroyen, most of 2005



Source: ESignal • [www.esignal.com](http://www.esignal.com)

make clear. The first is the portion of the action from the June low to the August high and low. This progression makes a complete low-to-high-to-low cycle, which completes in 42 days. The number 42, as we know by now, is a derivative of the 4.23 extension, which also has various Fibonacci relationships. More important to your pattern recognition skills is the time/price cluster at the low. The action spikes briefly intraday below the 61 percent retracement level, but for all practical purposes, we have a 61 percent price/42-day time cluster. The low leaves a tail, and two bars later, the confirmation comes in the form of a good open candle. That is your best opportunity to buy the dip even though there is another tail left on the 60th day of the trend in September. Any time after the September low, the MACD is already creating a bearish divergence where only the most aggressive players should be initiating new positions. Swing traders should be looking for a shorter-term play lasting anywhere from several days to a few weeks simply because in real time we don't have the benefit of hindsight.

**Figure 9.2**

Hourly EuroYen

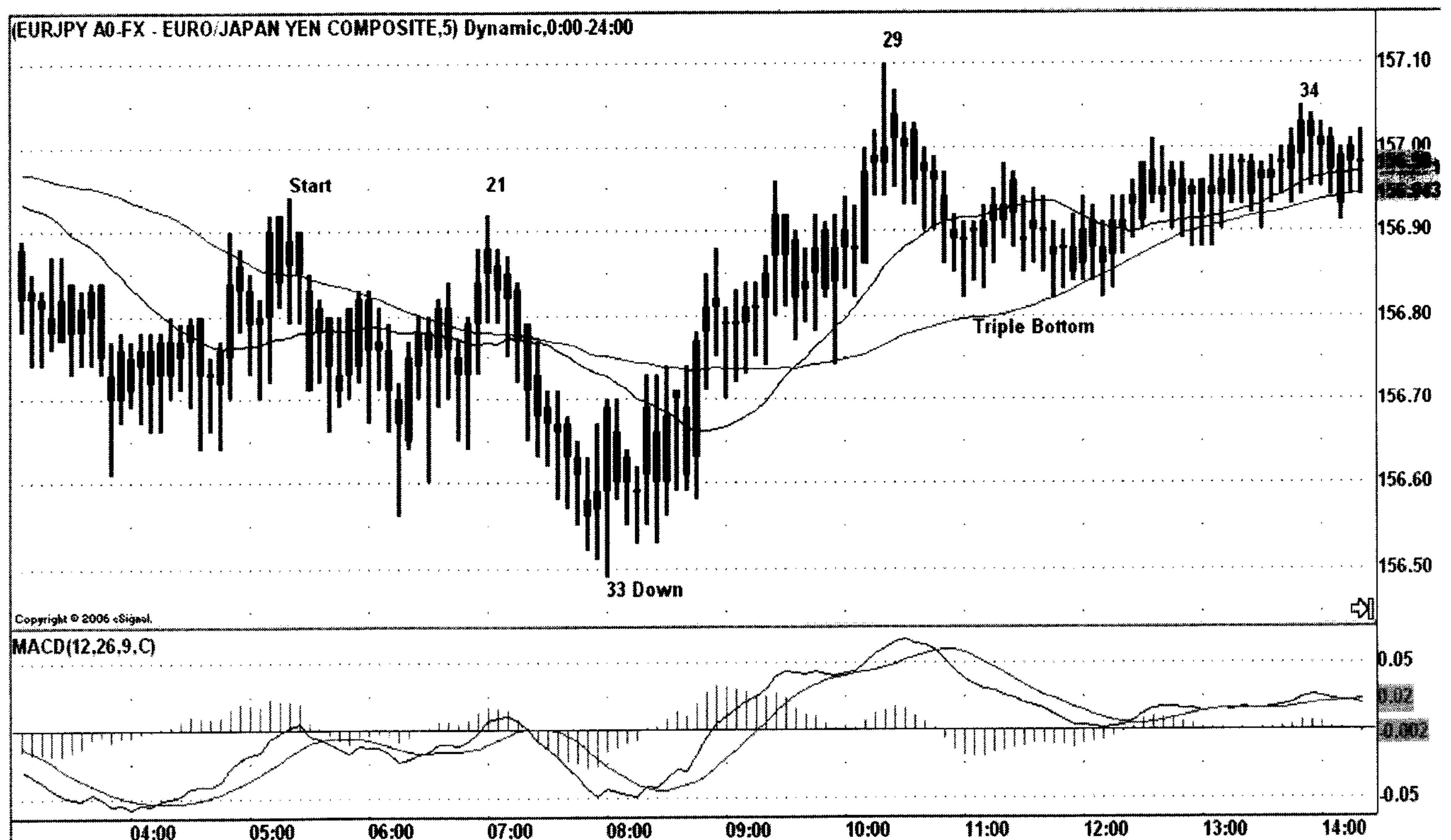




The high in November comes on a cluster of time. It is the 95th bar of the trend, which is 35 days off that September congestion low and entering the 54th bar off the August low. There is a divergence, and we do get an aggressive short trade but it's not the final high. The final top comes in December on the 122nd (Lucas 123-1) day of the trend where the divergence finally kicks in for good. Notice also the Fibonacci extension targets that high near 143.

On an hourly basis (Figure 9.2), we see a huge divergence developing, but the high comes in on the 124th hour of this sequence, just missing the Lucas 123 bar. The signal is on a high-wave candle with a very small candle body, telling us buyers are becoming indecisive. This example exhibits what we discussed in the chapter on divergences. Price action continues to drift higher, but the reversal doesn't come until the cycle completes. In this example, you may have been picked off and stopped out for a small loss had you gone short with the bearish engulfing bar on 12/13 on the 113th bar. However, the 113th bar as a derivative off the Fibonacci 13 is a

**Figure 9.3**  
5 minute Euroyen





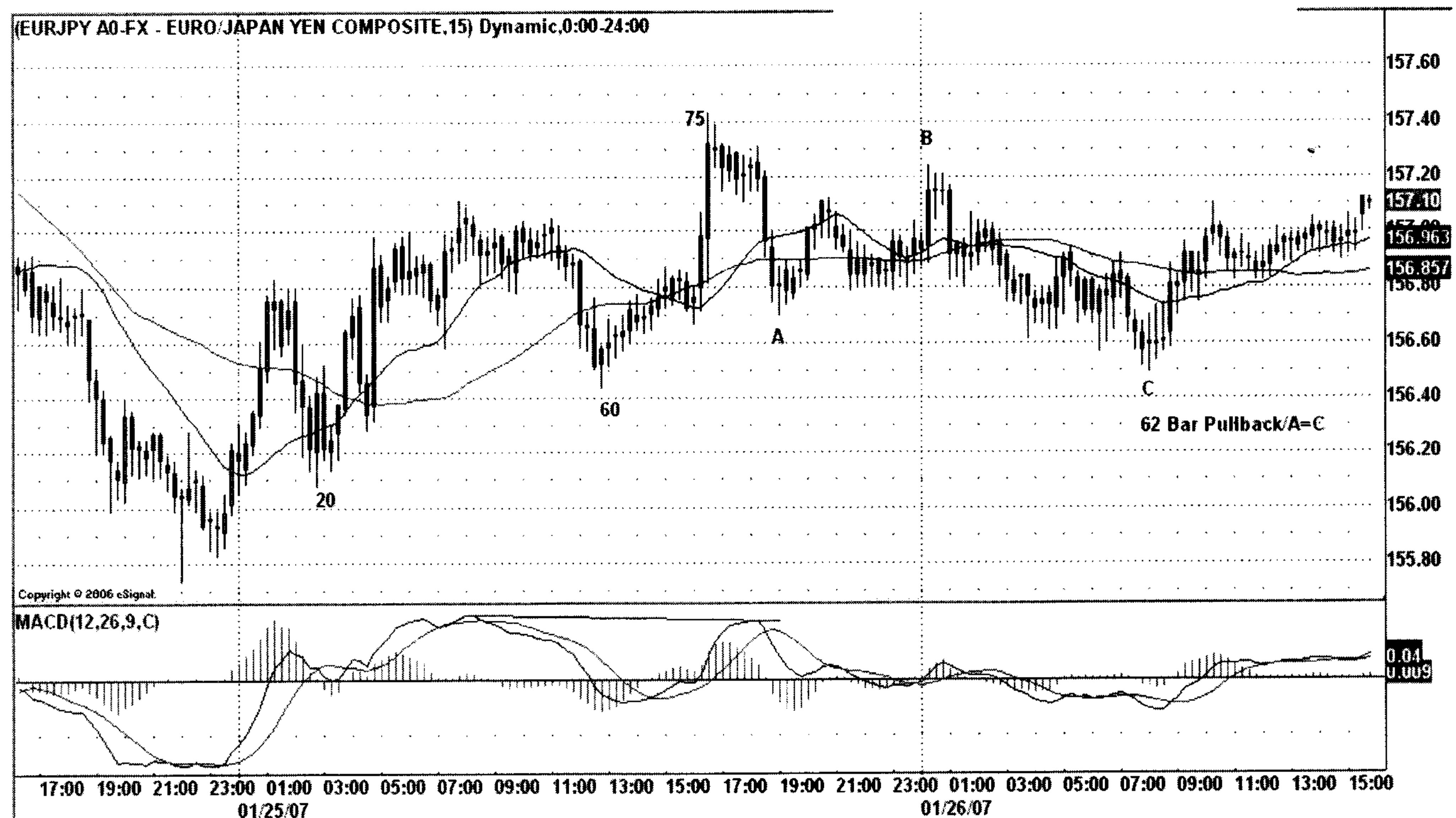
much lower probability turn. By the time you get past the Gann 108 bar cycle, you should wait for the 118 bar at the very least before considering a major change of direction. At that point, I'd consider the smaller time frame (15 minutes) or an exceptionally large black candle before pulling the trigger. Once you get to 118, this is a much higher probability turn bar, as is 121, and then, of course, the Lucas 123.

The ensuing correction is an ABC sharp that comes close to an interwave 1.618 price extension but stops going down near the .618 price retracement on the 155th bar of the trend. The next sequence higher does run out of gas on the 68th bar.

These cycles work on the smaller intraday cycles as well. On a 5-minute chart (Figure 9.3), we begin with a 33-bar leg to the downside, which is punctuated with a 21-bar, high-to-high cycle just as we saw on stock charts and other commodities. From there, an uptrend commences that spikes on the 29th bar. We have a complex pullback, which actually puts

**Figure 9.4**

Euroyen 15 minute, starts Jan 25th



in a small-degree triple bottom on three separate bars at 156.82. From the first low at 11:00, the next move up hits high points at the 34th and 56th bars. On this particular chart, there is a good degree of volatility in each bar. It is very important to be precise on your entries and exits as well as your stop placements.

Our final chart of this case study (Figure 9.4) exhibits more of the basic principles presented in previous chapters. Here we are using a 15-minute time frame. The first sequence on January 25 exhibits an uptrend of approximately 167 pips. As this book has progressed, we've paid less attention to the absolute wave count. Although, you can make out a five-wave progression here even though there is overlap that implies corrective activity. The first progression makes a 20-bar, low-to-low cycle with a bullish engulfing candle on bar 20.

The chart tops on the 40th bar, which spells another 20-bar rally and pulls back without the benefit of a divergence. After another 20-bar pullback, the final leg up does kick in on the 60- to 62-bar cycle off the low. In this case, it isn't a very good signal because we are absent a good candle setup. Without the benefit of a good bullish candle there, the move would go without my participation. At the high near 157.40, a decent divergence develops on the 76th bar of the progression. This is a very slow-developing downtrend, which only the most aggressive of you may choose to play. The only candle you get that hints that a confirmation is coming is the high-wave candle in bar 76 (next to the final large candle at bar 75). But, we do get a classic ABC down, which is a 62-bar pullback (where A = C). If I were going to play this correction, I'd wait for the B wave up to fail, where I'd have a good bearish reversal signal in bars 31-34 off the top.

## Australian Dollar

For our next case study, we begin with a daily chart of the uptrend in 2006 (Figure 9.5). To start, there is a 32-day uptrend and a 34-day pullback, which finds a low just south of the 61 percent retracement level. After the 34-bar correction, which is a very good price/time cluster, we get confirmation of a change in direction with a huge open candle. Since we are dealing with four decimal places, we have an approximate 40-pip move as a result of that bar. Bars 48-50 gave us a good evening-star reversal pat-

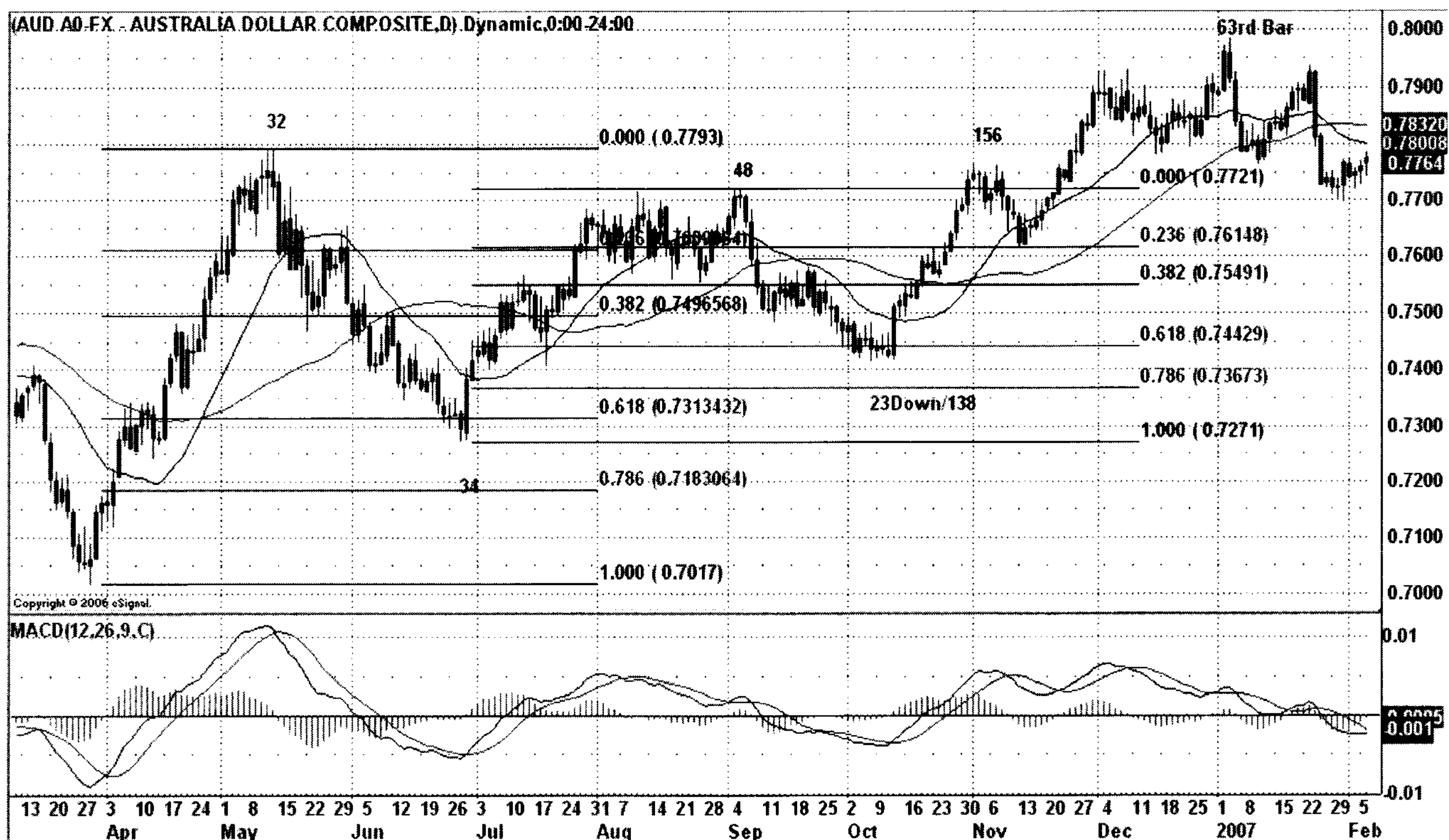
tern, which leads to a correction that bottoms on another time cluster of 23 bars and the approximate 61 percent price retracement.

As the MACD divergence develops, the overall pattern tops on the 63rd bar of the trend. This just misses a perfect 199 (Lucas) bar cycle but highlights what we discussed in the chapter on divergences. There are instances where the high will be on a perfect time bar to end a trend, but other times all we will get is a smaller degree bar that runs its course without the perfect larger degree cluster.

Figure 9.6 shows a progression from 2004. There is an excellent five-wave progression where we have a steep retracement in wave (ii), which completes a 60-day, low-to-low cycle. Wave (ii) is a three-wave corrective progression where the two legs are equal in size. The low came as a result of a harami where the candle body retraces more than 50 percent of the preceding black candle. I stated elsewhere in this book that moving averages support the strongest of trends, and this is a good textbook example.

**Figure 9.5**

Australian dollar, daily uptrend in 2006



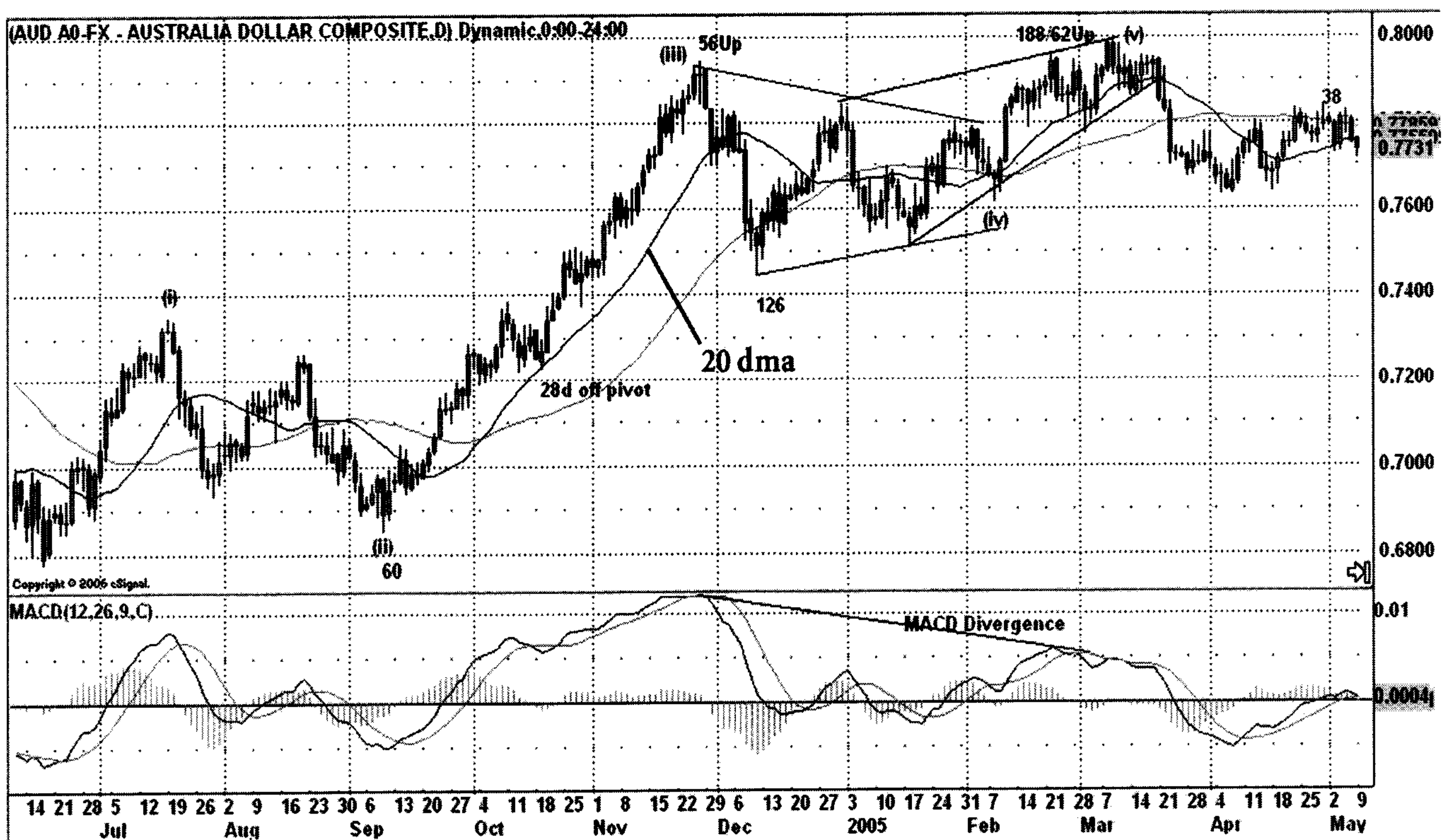
Source: ESignal • www.esignal.com



The 20-day moving average supports a very powerful wave (iii) because it is touched on the 28th day of the leg, and day 29 is a powerful open candle. The move finally tops in the 56th day of the progression and forms a triangle. You can make a case for a wave (iv) triangle here, which I've outlined. However, because it ends on 50 bars, perhaps you can also make a case for an ending diagonal triangle instead. I've drawn the possibility of a triangle and diagonal triangle so you can compare and contrast the subjectivity of Elliot and you can confirm the time count on your own with the time count. I drew the triangle because the price measurements confirm it. I would prefer to see a triangle confirmed by both price and time calculations, but the market doesn't always give us the perfect setup. What it does give us are perfect time calculations as the whole move tops in a 188/62 bar cluster. We also get a very nice reversal candle formation at the top where the bearish MACD divergence pays off.

**Figure 9.6**

Aussie dollar, MACD divergence 2004



Source: ESignal • [www.esignal.com](http://www.esignal.com)



Figure 9.7 is an hourly chart where the MACD divergence pays off. Before we get there, follow the progression of this downtrend. As we come off the top, price action hits the 20-period moving average on the 11th bar, which is a good pattern-recognition tendency. The 20 is not touched again, although bar 21 is the highest point of the next small spike. We get a near-term low on the 46th bar of the cycle, which you know by now is a very common relationship. The downtrend resumes at the 56-bar window (55+1). The bounce creates a congestion zone into January 9. This particular high stalls at the 38 percent price retracement of the portion of the leg that started down on January 3. The final low traces out on the 33rd bar of the progression off that congestion zone.

What you should take away from this chart is the fact that divergences will persist for a long time. This is such a powerful downtrend that we covered a lot of price territory in the first 46 bars where momentum peaked. However, it took nearly another 100 hours of price action before we got a good low. Keep in mind the time frame of this action. In the bigger scheme of things, it was an A wave low, and ultimately, by the end of the

**Figure 9.7**

Aussie dollar, hourly where the MACD divergence pays off



month, this low was taken out, but not before there was a good counter-trend rally.

Figure 9.8 shows what happened in the C wave down later in the month. We are using the same time frame. What is notable in Figure 9.8 is the spike into the 20-period moving average on the 47th bar of the progression. Once again, we have a strong initial thrust that takes the MACD all the way down. We don't get a low for another 100–120 hours. Where does the progression bottom? Fibonacci bar 144 finally takes care of a triple positive divergence.

Figure 9.9, the correction from 2004, changes gears a little bit but exhibits another concept we've covered in the advanced Fibonacci section. Check out the final leg up in February. I've drawn extension lines that cover only the final small portion of the uptrend. There are two major relationships in this downtrend to which you should pay close attention. The first leg down, which ends near price point 73, is a 1.618 extension of the final leg up. It shows a .618 line there only because I didn't want to use too many

**Figure 9.8**  
Aussie dollar, 144 bar C wave  
later in the month



Source: ESignal • www.esignal.com

retracement lines with the eSignal format. That particular point on the chart, which you can target ahead of time, hits a beautiful low on the 18 (Lucas) bar move of the trend. After another 18-bar cycle bounce, the downtrend resumes. I will repeat this tendency for the benefit of Forex traders who are skipping the rest of the book to read this chapter first. Gann and all traders who follow financial geometry believe multiples of 144 (Fibonacci) are very important. And they are. That is why we pay special attention to 36, 72, and 108 cycles. Of course, Lucas 18 is a multiple of the same. In this case, we have two 18-bar cycles or a 36-bar high-to-high progression.

As the trend continued, we saw a small spike up into the 56th bar at the 20-period moving average and finally a bottom on the 87th bar. That low is an excellent 2.618 price extension of that final leg up. I urge caution, because it doesn't always work out this way; but, it does more often than not. At the very least, had you targeted this low using this methodology, you would have been in an excellent position to go long in the middle of June when you had an excellent reversal candle.

**Figure 9.9**

Aussie dollar, 1.618 extension correction  
of final leg up



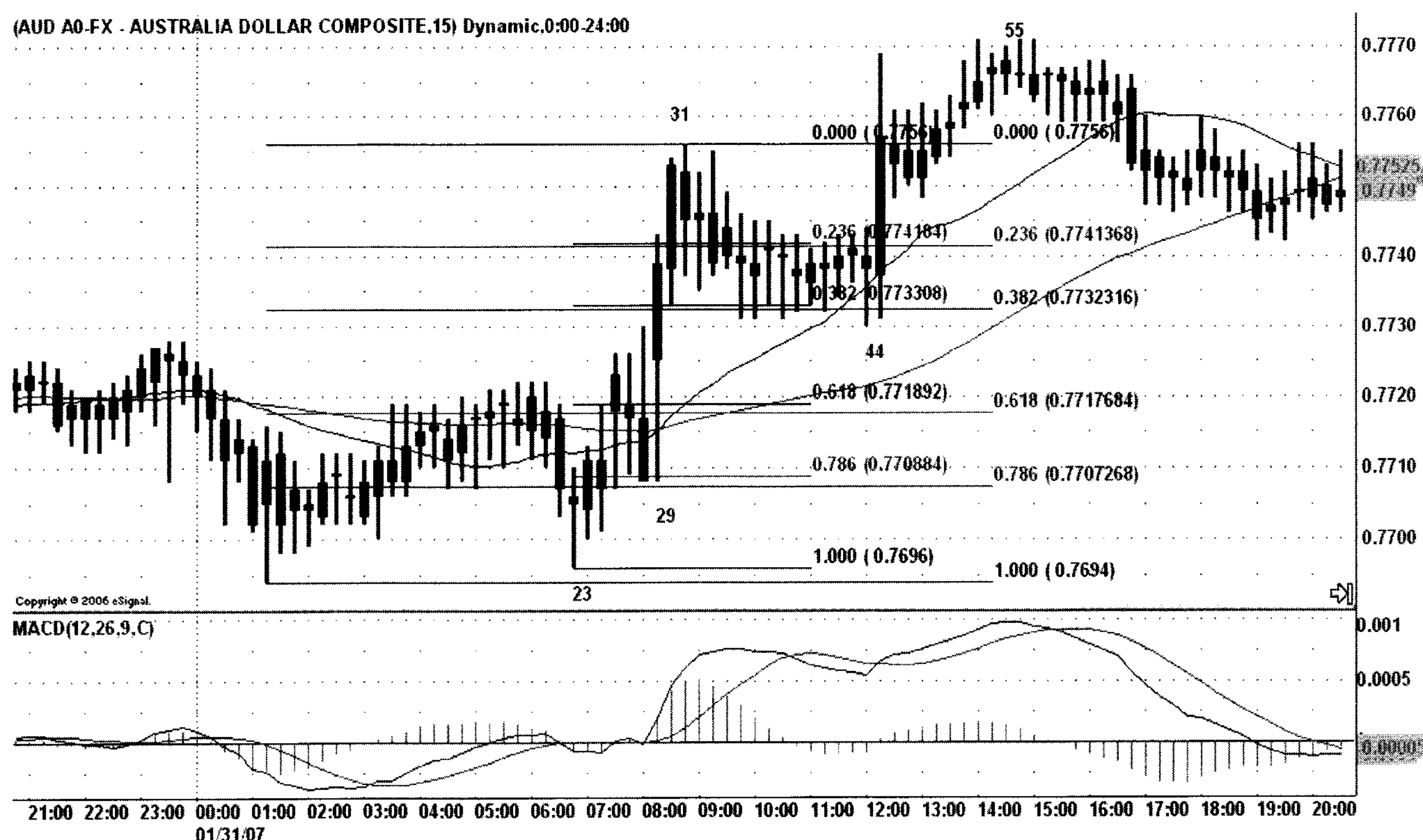
Source: ESignal • www.esignal.com



The next two charts of our Australian dollar case study are for those of you who concentrate on intraday patterns. The first is very straightforward. On a 15-minute basis (Figure 9.10), we have a 55-bar progression. The first leg up creates a congestion zone around bar 21 as three bars share a common high. The low comes in at bar 23. There is another huge spike down at bar 29, and we top at bar 31. The Fibonacci retracements are drawn off the low and secondary low to the high at bar 31 to target a pullback off the 31-bar high. You can clearly see that we found a bottom at a double 38 percent retracement line after a 13-bar pullback (44–31). The final bar tops in the 11th bar of the leg for an overall high at the 55-bar cycle.

The final chart (Figure 9.11) is here because I wanted to highlight a basic Elliott relationship that I haven't covered in this chapter. There is a five-wave progression where the top of wave (iii) is a 1.618 price extension of wave (i) as it is measure off the low of wave (ii). This is how traditional Elliotticians measure waves based on common Fibonacci calculations. Wave (iii) actually tops on the 69th bar of the move, which is the 125th bar

**Figure 9.10**  
Aussie dollar, 15 minute,  
55 bar progression



Source: ESignal • www.esignal.com



overall. Notice the low on bar 56 as it leaves a huge tail to the downside. Although this is a very big bar, it really is only half a bar! If you consider that, by the time it tops, it is the 68th bar of the move even though it is actually the 125th bar of the entire trend. That bar is also a high-wave candle. I believe the chart may be under the influence of both the 123rd (Lucas) and the 127th (1.27 derivative) bar cycles.

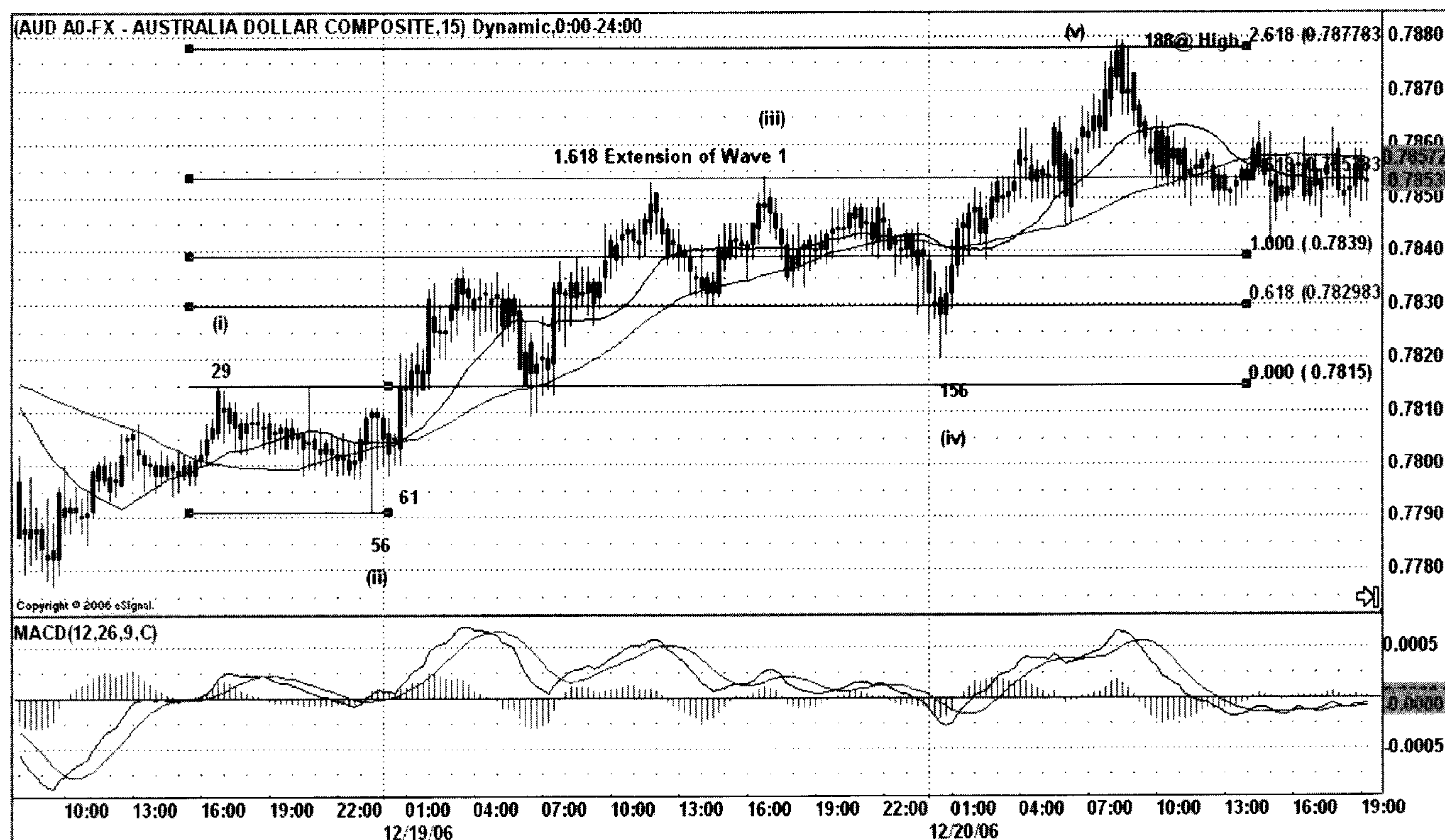
Although it is not shown, the ensuing correction that ends on the 156th bar is a cluster with the 38 percent price retracement off the low. The final high comes in at the 188–89 bar cycle, which is a double high and also 33 bars off the wave (iv) low. The MACD also levels off at that point.

## Yen

The final two charts of this chapter exhibit excellent timing calculations on a Yen 5-minute chart. If you are going to trade on 5-minute bars, this might be the one that has the cleanest tendencies. I've outlined all of the relationships on Figure 9.12. In this downtrend, we break lower after the

**Figure 9.11**

Aussie dollar, intraday five wave progression



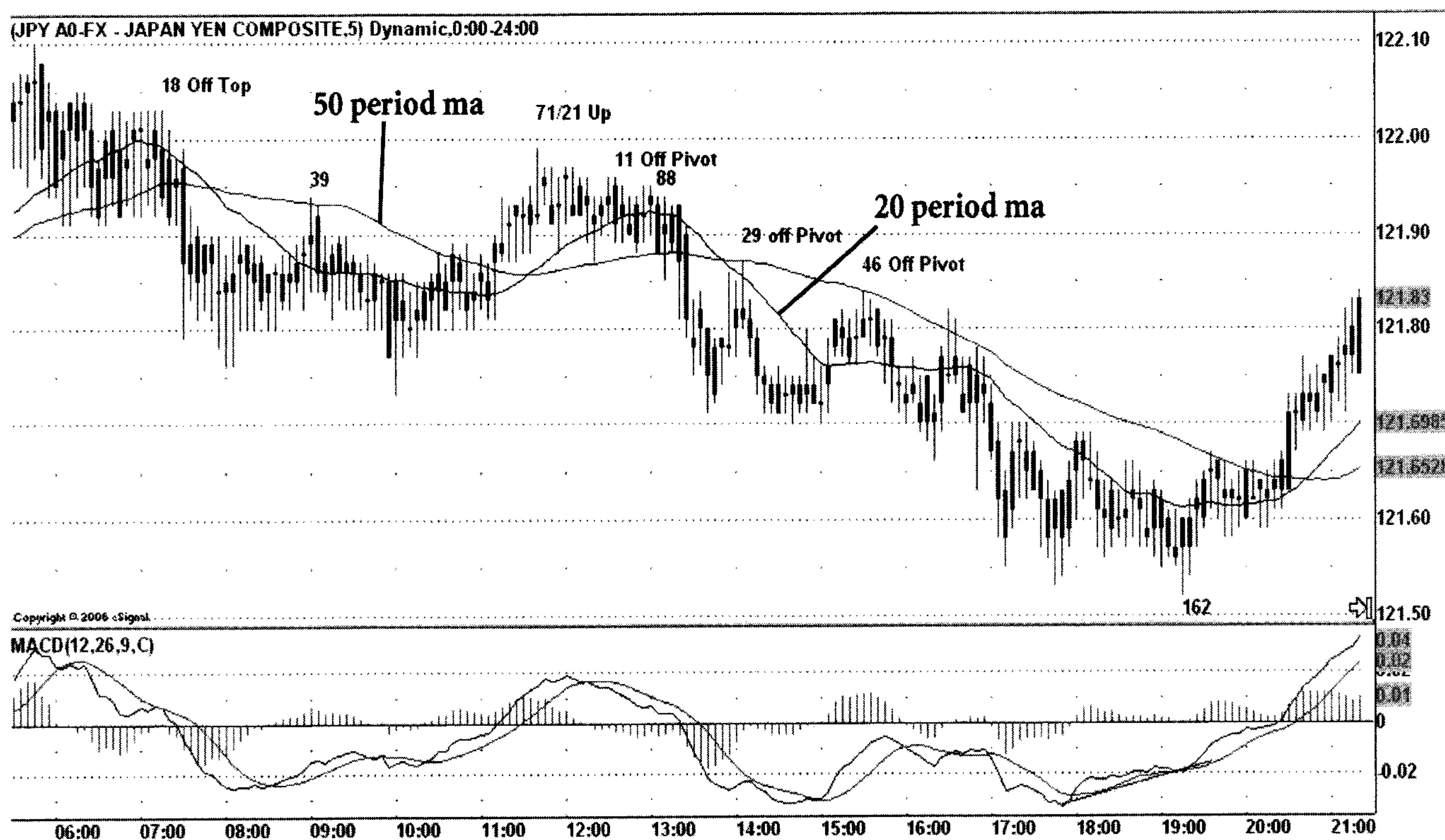
Source: ESignal • www.esignal.com

18th bar. The bounce concludes after 21 bars up. The next phase lower gives you numerous chances to get in. There are opportunities to go short on the 11th, 29th, and 46th bars. We get a very clean low on the 162nd bar of the move. For the most part, where the trend is not contained by the 20-period moving average, it is contained by the 50.

Finally, Figure 9.13 shows what happened on the next progression up off the 162 bar low. I've added this leg so you can see just how powerful a 162-bar tendency can be. The whole cycle starts anew with a 68-bar move the other way. Note how the 55-bar cycle becomes a buying opportunity at the 61 percent price retracement level (breaks out on the 55th bar).

Here are a few things to note about this chapter. I've given you examples from some of the most liquid and popular markets. There are other less liquid markets that you should avoid because setups will be few and far between. Here I've picked some of the better examples. However, it's just like the other markets—really good setups don't materialize all of the time. Because there is 24-hour trading, many of the setups are nothing

**Figure 9.12**  
Yen 162 bar 5 minute



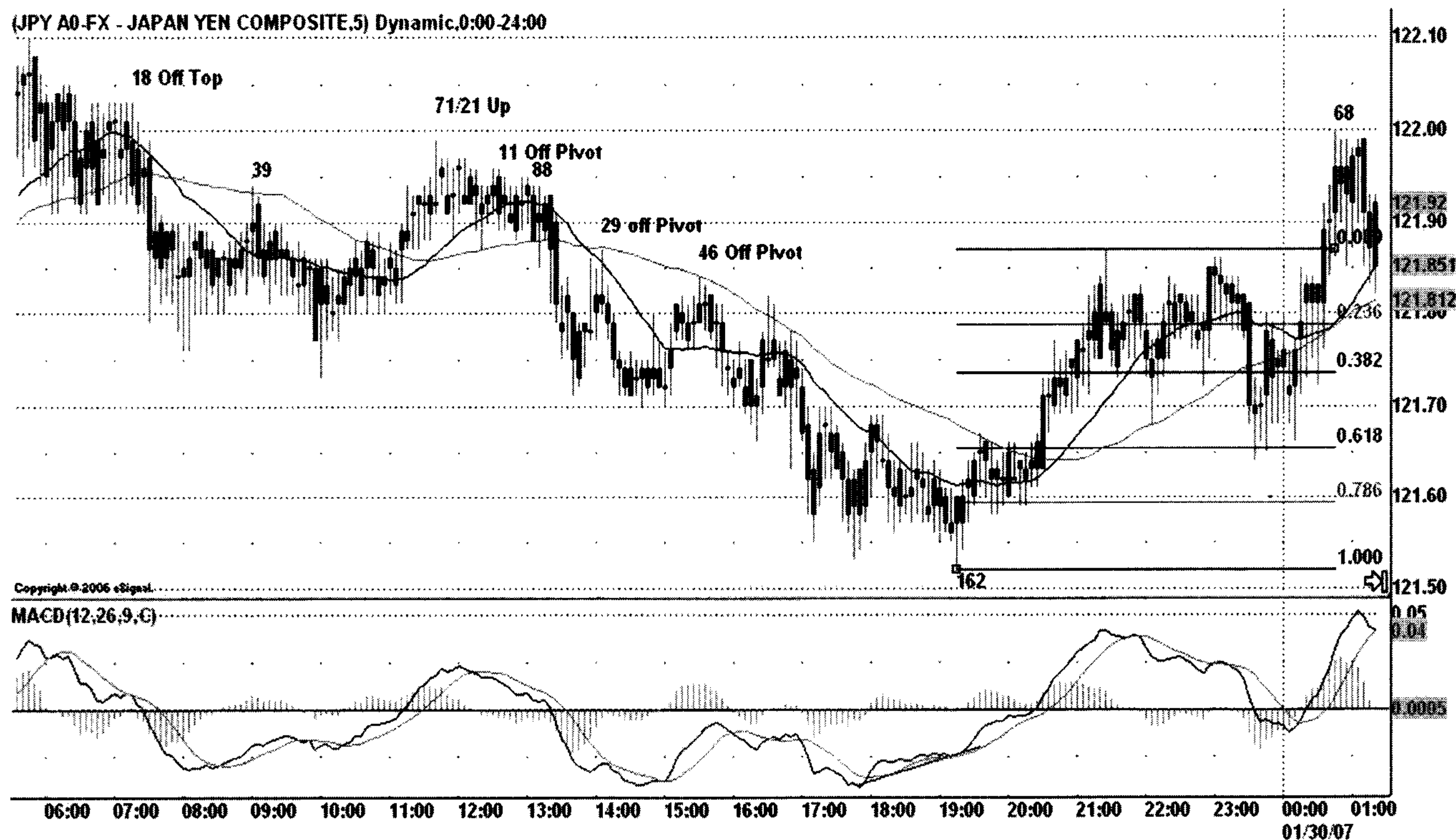
Source: ESignal • www.esignal.com

but junk and you should stay away from them. The analogy to the stock market is that there is a universe of 8,000–10,000 stocks. Do you think all of them, or even a large percentage of them, are giving you great setups at any given point in time?

Of course they are not. Neither is the Forex market. If you are a 5-minute trader, you may have to wait hours or even a few days to get the kinds of progressions I've shown you here. Obviously, 15- or 60-minute charts are a little easier to find. I don't want to give you the impression that every single leg you are going to see has such precision. Due to the 24-hour nature of these markets, there will be long stretches of certain days where things don't line up; timing clusters won't match with Fibonacci price retracements. Probably the biggest difference I've seen in these charts is on the MACD. You may get more timing clusters that have MACD divergences than any other chart I've covered in this book. That goes for stocks, indices, futures, and commodities.

**Figure 9.13**

Yen 5 minute, progression up  
off the 162 bar low



Source: ESignal • www.esignal.com

Despite this, there are some incredible setups, and the timing methodology discussed in this book does work beautifully in this market. The truth comes when you examine hourly and daily charts. It's in the smaller time frames where you need to exercise caution.

Another thing: some of these charts have incredibly wild swings. Since the leverage is 1000–1, it wouldn't take much to significantly dent your bankroll if you happen to get stopped out at the wrong time. As with any methodology, just because you track the bars, it doesn't mean every trade is going to work out. If you happen to catch a time sequence that comes off the heels of an exceptionally large tail or wide range bar, either pass on the trade or adjust your stop accordingly. As long as you have capital, there's always a next trade. There is no need to get greedy.

Therefore, though there are some enhancements and tweaks compared to stocks, this is a methodology that should enhance your pattern-recognition capabilities. It is a system you will need to combat the wild swings that go with trading these Forex charts. You need to give yourself the skills that will put you over the top with confidence to tackle this challenging market.





# 10 | MENTAL TOUGHNESS

There are only two chapters left in this book. We need to take everything we've done thus far and tie it together so you can begin to use this methodology. Before we do that, we need to make sure your most valuable asset is tuned up as much as possible. It is my belief that you can't even get to the game if you have greater issues that are distracting you.

If your mind isn't right, no methodology in the world will work for you. What we are going to do in this chapter is review various works from different mentors of mine in the field of psychology and mental toughness. Over the years, the lessons I've learned from each one of these sources have provided me with priceless tools not only in trading but also in life. I would urge you to check out every one of them because they all provide valuable information.

Understand that when you trade, you are not competing with anybody but yourself. There is a lot of noise out there. Your biggest enemy besides yourself will be the maddening voice of the crowd. You have to listen to them, yet ignore them at the same time. What do I mean by that?

During any rally phase, there comes a point where the folks on television will tell you that we may be at the dawn of a new bull market, which will last for years. For oil traders, it was hurricane Katrina. Recall what was happening at that time. Oil was on a tremendous run and elected to blow through every single point of both price and time resistance. It finally got to the point where so-called experts were being paraded on television telling us oil was headed for \$100 or even \$200 a barrel. Finally, disaster struck, devastating the rigs in the Gulf of Mexico. To hear the media's side of it, we were going to have oil supplies disrupted for months. Even worse, they told us that weather patterns had changed permanently and category 3 to 5 storms would be the norm for years to come.

Wouldn't you agree that it takes a mentally tough person to take all of that in and do the right thing? As you know, the Katrina event was an intermediate-term top in the oil market. Prices didn't go to a \$100, and only a year later Chevron claims to have found the largest oil strike since Prudhoe Bay. As I was writing this book, prices were trading near \$50.

You need to pay attention to what the crowd is saying and interpret what it really means. When it comes to commodities, absolute fear usually is a top. When it comes to the stock market, absolute fear usually is a bottom. When the experts tell you that stocks are going to the moon, that is the time to think about short positions. You then wait for the appropriate signal.

We have to train our minds to be able to take trades intelligently in psychologically uncomfortable positions. Anybody can pick a top or a bottom and get stopped out. It's not so bad to get stopped out, but doing so excessively begins to add up and drain the bankroll. What we've covered in these pages will give you intelligent choices of how and where to go against the trend. What this book doesn't show you is what the prevailing sentiment is in real time when the charts are hitting these important time bars. The charts don't show it, but the emotion and noise are always there. That's why we have this chapter.

## **TAKING OUT THE GARBAGE**

The first thing you must do is deal with your own demons. There are many works on the psychology of trading, but the best in my opinion is

*Trading in the Zone* by Mark Douglas (2000). The other one is *New Trading Dimensions* by Bill Williams (1998). Each prepares you to learn how to get into a “flow” state of mind. A flow state of mind is where you tune out all distractions, fears, and anxieties and get into rhythm with your highest potential. In terms of trading, it’s where you allow yourself to take advantage of all the hours of study and practice to do in real time what you’ve been training for.

To get to that point, most of us have a fair degree of mental garbage we must purge from our minds. For most of us, the garbage begins accumulating in childhood. As we get older and start school, we learned to conform to a certain set of rules that ruined our childhood creativity. By the time we get to junior high school, we have peer pressure to dress a certain way, act a certain way, and perform sports at a certain level.

We all have a psychological need to conform to peer pressure and be accepted. If you ever listen to interviews of some of our greatest entertainers, the one thing they have in common is a rough childhood. Many were misfits and stood out from the crowd in some negative way. Bruce Springsteen was a misfit as a youngster, and I’ve heard him speak about how he endured his childhood. I also remember Sharon Stone stating she was the ugly duckling in high school. Lately, former hockey coach Jacques Demers has emerged as a spokesperson for children living in homes of domestic violence. In a CTV 2005 story, Mr. Demers claims he grew up in a home where an alcoholic father used to beat his mother. This was so psychologically damaging that he couldn’t pay attention in school. Mr. Demers went through most of his adult life hiding the fact he could barely read or write: and this is an individual who was the Stanley Cup winning coach for the 1993 Montreal Canadiens.

Some of us have to overcome our families; others have to overcome the tremendous urge to conform; and some of us have to overcome both.

What does this have to do with financial markets? We learn at an early age to model ourselves to the behavior of the crowd, and

Some of us have to overcome our families; others have to overcome the tremendous urge to conform; and some of us have to overcome both.



we also learn the painful consequences of straying from the herd. When we get to the point of having to deal with financial markets, this attitude can be a bankroll buster because our success depends on our ability to go against the crowd. For most of us, it's the first time in our lives our success may depend on going the other way. If you've had a rough upbringing like Mr. Demers, it only compounds the problem.

Douglas spends the better part of two books discussing how the psychological scars of life affect our ability to trade profitably. For the most part, he confines his commentary to what happens in the early part of our trading careers. This can be psychologically damaging to the point where we are unable to pull the trigger on trades even when we finally get to a point where we know what we are doing.

Douglas states correctly that if you suffered losses to any important degree in your trading career, it can affect your ability to function successfully in the present. This can include anything from one trade where you had extremely high expectations to a string of losses that caused you to lose one or more bankrolls. It is true that some traders have to burn through several bankrolls before they can overcome their learning curve and operate successfully. It is also true that some traders only develop the patience not to overtrade because of the losses earlier in their career (Douglas 2000, 38–56).

The trading partnership I discussed in my introduction seemed perfect—so how come it didn't last? My partner was one of the few people you will ever meet who had a bottomless pit of money (a large trust fund) to overcome all of his mistakes. This man just couldn't pull the trigger by himself in an uncomfortable situation. On one occasion, we were watching the long bond during a topping phase. I told him it was going to top, and he finally put in a sell stop just below the high. Well, after the bond topped, it went sideways for about 6 days before it finally rolled over. As I went to work that morning, I was excited because I already heard on the radio that bonds had started dropping. Wake up \$4,000 richer, right? Wrong! When I got to work, my partner told me he gave up on the idea of bonds dropping and cancelled the order the night before. He didn't even have to do anything! The order was already in, and if it had been triggered, we were in the trade. If the market accelerated to the upside, we lost no money because we weren't in the trade yet. But, he couldn't wait; evidently the stress of waiting triggered a painful experience from his past.

The point is that this individual suffered so many losses over the years that he had a self-sabotage program deeply embedded in his mind preventing him from being a good trader. This was a person who had a bottomless pit of money at his disposal. If losses could traumatize him, what does that say for the rest of us? That was the beginning of the end of our partnership.

We must overcome not only a rough upbringing or the urge to conform, but also life's regular disappointments and adversities. What can these be? Let's look at what are cited as the most stressful events that can happen to an individual:

1. Death of spouse, parent, child, or close friend
2. Divorce
3. Loss of job
4. Relocation to another state
5. Personal illness

Your mindset when one or more of these events happens will determine your ability to persevere, although some people may never overcome these adversities. They will affect your confidence and ultimately your ability to operate in a flow state of mind.

Recently, I had to deal directly with the very high stress situation of discovering a potentially cancerous lump in my testicle. The visit to the doctor was not encouraging. Because the doctor was very concerned, I received the Lance Armstrong inspirational speech—and this was before any tests were done. The next four days were the toughest of my life until the test results came back negative. After that event, small problems in my life didn't seem so significant anymore. I felt I could overcome just about anything, and I didn't even have cancer. But, now I can understand why many survivors report that for the first time in their entire lives they were totally in touch with their true selves and their ability to overcome extreme adversity. Don't you think it would be better for the rest of us to deal with our adversities in less extreme circumstances? If we truly want to succeed at trading, we must learn to handle every curve ball that gets thrown our way.

**Rewrite your script**

Some people, like my old partner, run a script in their minds, which is an endless loop replaying all of the unhappy events in their lives. They tend to play it out in the decisions they make in financial markets. If you want to be successful, you must rewrite that script.

**Rejection**

Rejection, whether professional or personal, is a common issue that can severely affect our trading mindset. Earlier in my trading career, I was encouraged to apply for an analyst position with a small but very prestigious firm. I was encouraged to do so by someone very high up in the organization. This happened not once, but twice! For whatever reason, it didn't work out both times, and I was greatly disappointed.

We are all going to suffer disappointments in our life, but how we react and get off the floor determines our character. In my case, I decided to carry on with my own research. Had I gone to this firm, I doubt very much that I ever would have uncovered the Lucas series and all of the time sequences that go with it.

The point is that repeated rejections can have an overall adverse affect on our confidence and will affect our ability to trade successfully. Some people, like my old partner, run a script in their minds, which is an endless loop replaying all of the unhappy events in their lives. They tend to play it out in the decisions they make in financial markets. If you want to be successful, you must rewrite that script.

**Poverty Mentality**

The poverty mindset is a common and often unknown issue that a majority of traders must face. The environments in which we grew up greatly influence us. Many of you grew up in a house where your parents said, "Money doesn't grow on trees," or "Save for a rainy day." Most of us developed our attitudes about money from our parents. Others may have learned over the years that having money would cause others to dislike them. Do you believe that if you suddenly took your financial game to the next level, it would mean your friends and relatives would start hitting you up for a loan? Do you think your friends or relatives would be envious of your success?

Do you believe that having more money means you would have the burden of greater responsibility? Do you believe hav-

ing more money would mean you wouldn't have the time to enjoy yourself anymore because of this responsibility? Do you believe that if you had more money, you wouldn't know what to do with it? Do you think you would lose it? If you resonate with any of the above, there is a good chance you suffer from a poverty mentality.

Do you want a bigger house, new car, new clothes or a vacation? If so, there is a good chance you suffer from a "lack" mentality. There are only those two types of mentalities. There is only the "prosperity" or "lack" mentality. You have either an abundance mentality or a poverty mentality, and there may be a fine line between the two. I can tell you one thing for sure: if you go around life looking at what you don't have as opposed to what you do, that is a lack mentality. It's okay to want better things in life, but you have to visualize being there. You also have to be happy with whatever you have now to get more. The dichotomy is that if you do well with what you already have, the universe ends up giving you more to work with. If not, it's slowly taken from you. Whatever you focus on expands (Dwoskin 2003, 316-332).

On a conscious level you may want financial success, but deep down on a subconscious level you may sabotage yourself.

This attitude has a direct correlation with trading. We discussed how mental garbage can get in the way of your trading success. You can now look at your own background and see what may be holding you back. Many of you may not think you have a poverty mentality, but look at your trading patterns.

Do you consistently pick bad setups? Do you get yourself into trades but pull the plug on them before they have a chance to work? Do you get yourself into winning trades but hold on too long and end up relinquishing those profits? If you fall victim to any of the above, you may have a lack mentality and not even know it.

On a conscious level you may want financial success, but deep down on a subconscious level you may sabotage yourself.

On a subconscious level, you may have a fear of failure because secretly it is your desire to fail. It may be your desire not to have money. It may be your desire not to be successful. Impossible you say? As



I said earlier, unless you examine your relationship with money, you really don't know. Your comfort level may only be with what you know, no matter what it is. Secretly, you may think you'll lose your friends if you suddenly made more money. Secretly, you may think it actually is a burden to have more money.

What happens in front of the computer screen is a manifestation of what is going on in your mind. When you go to pull the trigger, you are either confident or you are not. You have either a poverty or a prosperity mentality. The way you look at the market is largely the way you look at life. The way you look at life is a result of your background and how you've learned to deal with the various adversities life has thrown your way.

The challenge that many people have is that they possess elements of both a poverty and prosperity mentality. But Jeff, you already said you either have a prosperity mentality or a poverty mentality. How can you have both? The truth is that you don't magically go from one to the other overnight. It is a process over time where you begin to heal yourself. It works like peeling an onion. You can have layers of lack. You can start to heal certain areas of your life, but you will still have others to work on. No two people are in exactly the same place. Many people who would read a book like this already have a bankroll to trade with, and unless you are a trust fund baby like my former partner, you've done enough right things in your life to have that bankroll.

I also believe that if you are dedicated enough to rip into a technical book such as this, you already have enough of the elements to succeed at trading. Many of you just need some refinements and adjustments in your understanding of financial markets and in your mind. Others are in the healing process of some of the issues covered earlier in the chapter.

Depending on your background and the amount of stresses you've had to deal with in your life, all you may need is a good primer on mental toughness or quite possibly a complete mental overhaul. Since this is a book on timing, there isn't enough time to cover these methodologies in one chapter; all we can do is review them. You'll have to follow up with your own due diligence. But in the very least, I hope I've brought awareness to your condition so you can do something about it.

## THE ZONE

Will these types of issues really stand in the way of your trading success? The work of Dr. Roland Carlstedt indicates that they might. Dr. Carlstedt is the chairman of the American Board of Sports Psychology and founder of the Brain Resource Company. He is also the author of a sports psychology book and the Carlstedt Protocol. Dr. Carlstedt studies what makes athletes come through in the clutch.

Each year, the National Football League invests millions of dollars in the best players coming out of the collegiate ranks. One high-level mistake can set back a franchise's development for years. Most of the NFL hopefuls make the annual trek to the Indianapolis Scouting Combine each February where all pro teams analyze speed, size, skill, and intelligence. Even after all of the analysis, the draft is still a crapshoot. Why is that? According to Dr. Carlstedt, "people are paying big bucks for bull----!" What really counts is what these players are going to do in pressure situations (Assael 2007).

Some of you may remember the early days of Terry Bradshaw's football career. I don't know why (maybe because he was from the South and a victim of a bad stereotype), but he was considered to be a dumb quarterback. That's not good considering the quarterback position requires one to be exceptionally smart. Whatever the case, Terry Bradshaw won a lot of football games. In fact, he was the first quarterback to win four Super Bowls. You might say he had the ability to come through in the clutch.

Recently, University of Texas star Vince Young did not perform exceptionally well on the Wonderlic Personnel Test of intelligence. But he was good enough to lead his team to the National Championship over USC in 2006 and had a very admirable rookie season in the NFL.

These types of intelligence tests fail to predict what a person will do in a pressure situation. There are a number of books written about being "in the zone." Dr. Carlstedt set out to prove the physiology of the zone for his PhD thesis. He attached a heart monitor to a 16-year-old tennis whiz for three matches and spent the next year analyzing the results. He filmed the matches and correlated frame by frame with the test person's heart rate. He found that his test subject's heart rate was slowest when he performed best on the court. He found the test subject's heart rate was fastest

when he performed worst on the court. This is exactly the opposite of what Dr. Carlstedt expected! Dr. Carlstedt expected his tennis prodigy would be jacked up to perform well. He thought excellent performance correlated with an increase in the internal energy of the body. What he found was physiological proof of relaxation when one enters the zone (Assael 2007).

Carlstedt then created a grid that married his neurological research to three settled psychological concepts: Everyone has the capacity to get into the hypnotic zone; everyone dredges up bad memories at the worst moments (which Carlstedt calls “clutter”); and everyone has an innate ability to stop that clutter from interfering with frontal lobe planning (Carlstedt calls this “subliminal coping”).

The American Psychological Association gave Carlstedt their award for best sports dissertation. One reviewer called it “a watershed in the annals of research in sports psychology” and said he “would not be surprised if it became a classic in the field.”

Carlstedt then did a study with a youth baseball team, the Manhattan Goths. Before the season began, each participant went through a battery of physical tests. Carlstedt’s ideal would be a player with a high hypnotic susceptibility (easier to get into the zone), low introspection (less mental garbage), and high coping skills (to stay clear of mental garbage). Carlstedt hooked each player to the heart rate monitor before and after each of their at-bats in their season. The data included 1,400 at-bats, which yielded seven stress levels. Carlstedt claims his grid could predict with 87 percent accuracy what each player would do in high-pressure situations.

“He then taught his players mind-body focus exercises and watched their statistics skyrocket. With runners in scoring position the team’s batting average went from .351 to .427, and slugging percentage went from .457 to .608.” If you know anything about baseball you’d realize these results are phenomenal (Carlstedt 2007).

### **Carlstedt Psychological Concepts**

Everyone has the capacity to get into the hypnotic zone; everyone dredges up bad memories at the worst moments (which Carlstedt calls “clutter”); and everyone has an innate ability to stop that clutter from interfering with frontal lobe planning (Carlstedt calls this “subliminal coping”).

What Carlstedt's groundbreaking work proves is the physiological existence of "the zone." Not only that, he shows that we all have the capability to varying degrees to get there. It also proves that other than all of the training an athlete does, there is still an emotional component to success. His work also suggests that negative thoughts will keep us from performing at our best.

Carlstedt's work suggests that negative thoughts will keep us from performing at our best.

Athletes must train for long hours to get their bodies in "game condition." Beyond that, they must practice long hours perfecting their techniques and studying film of opponents to learn their tendencies. All of this preparation gives them an edge in their competition. This is not unlike what traders must do to succeed in the financial markets.

A trader must take the time to learn a specific methodology. Many in the field suggest several months of "paper trading." I don't agree with the reasons the industry gives for paper trading, but I do agree with the concept. When one performs simulated trades, he or she loses the "pressure" element described earlier in Carlstedt's work. However, simulated trading or a long period of observation does allow the brain to develop new neural networks, which accomplishes the process of rewiring the brain. Traders must have a period of trial and error where they come to trust their methodology in real time. Once their brains recognize high-probability tendencies, they can then take advantage of high-profitability situations. As traders, we are challenged by a finite bankroll. We need to recognize high-probability tendencies before we lose all of our money.

Traders must have a period of trial and error where they come to trust their methodology in real time. Once their brains recognize high-probability tendencies, they can then take advantage of high-profitability situations.

## DEVELOPING MENTAL TOUGHNESS

How many of you are familiar with Bill Gove? Gove was the greatest platform speaker in the second half of the 20th century. He was the first president of the National Speaker Association and the recipient of the prestigious Toastmaster of the Year Award. He was the Tiger Woods of professional speaking. Gove



lived into his early 90s. Here was a man who had more energy and smarts than many people half his age. He teamed up with a young businessman and former professional tennis player Steve Siebold. Together they formed different success programs, the most popular being the Gove-Siebold speech workshop. In the past couple of years, Siebold (2005) created Mental Toughness University, a program designed for corporations. However, there are also programs designed for individuals.

Siebold had admitted that his lack of mental toughness prevented him from hitting his potential and goals as a tennis player. He lacked the dedication to take his practice level to the point where he played consistently in the zone. Whatever the case, when his career ended, he decided he was going to model the skills of people he considered to be world class in mental toughness and success. How does one develop a world-class level of mental toughness according to Siebold?

It begins with passion. "If you are going to succeed at anything, you have to develop a vision and a burning desire to see that vision through whatever adversity may come your way," he said.

Let's put it this way: if on a scale of 1 to 10 your passion is a 5 and you encounter a problem that is an 8, you're not going to overcome it. It's going to take you down. If on the other hand, you are an 8 and your problem is a 5 or even a 7, you'll find a way to overcome. See what I mean? Your passion needs to be a 10+. That way you'll find a way to run through walls to achieve your dreams.

Using Carlstedt's Protocol doesn't mean you need to walk through life psyched up. As long as you take your preparation to a world class level, when it comes time to perform, you'll have the necessary confidence to perform in the zone.

What happens if your passion is not a 10? You have a problem. In my opinion, you probably need a different passion. But if you do have that passion, whatever it is, you'll develop the staying power to see it through to the end. If you do love what you are doing, other people will pick up on that and naturally be attracted to you. Who wants to do business with someone who is not passionate about his or her product or service?

## Developing Mastery

Part of being mentally tough is doing things when you really don't feel like it. A corollary to that is doing things of which you are afraid. If you are afraid of something, you don't feel like doing that activity, right?

Let's say you are trying to start a side business but have to work a full-time job to pay the bills. Let's say you work a 40-hour week and get home from the office at 7 pm. You have dinner for a half-hour, and you take 1 to 2 hours, 5 nights a week plus Saturday to build your business. The truth is that you work very hard all day, and although you are passionate about your dream, some days you are just too tired and would rather roll up on the couch and watch sports. Say you can put an extra 12 hours a week into this venture, and you estimate it will take a year to get it off the ground. That means you will have to invest 624 hours to get this business started in the next year. We all have the same 168 hours in a week. If you are consistent and invest that 12 hours every week, you'll be where you need to be in 52 weeks. But if you get lazy and invest only four hours a week, that's one-third the time, and it will now take you three years to get your business off the ground. Can you appreciate the value of your time and how concentrated effort adds up? The mentally tough get it.

Let's apply this to true mastery. According to *The Cambridge Handbook of Expertise and Expert Performance* (Ericsson, Feltovich, Hoffman 2006), mastery in any walk of life is due to practice, motivation, and the right environment. Sure, we all have a proclivity to do something, but it's what we do with this proclivity that counts. Stop thinking you can't be great at something because you're not a "born genius."

Anders Ericsson is a professor of psychology at Florida State University and one of the Cambridge authors. His study of mastery suggests that "extended deliberate practice" is the key. One particular study was done with 78 German pianists and violinists. He interviewed them extensively and concluded that the best of the group had spent an estimated 10,000 hours practicing com-

Greatness comes over time as we learn sound methodologies and build on them to discern subtle ways of improvement.

pared to 5,000 hours of the group who were considered mediocre or average.

According to the Cambridge study, one of the reasons for mastery is the brain's ability to "chunk" information. When we learn new skills, the brain develops new neuron pathways. In simple terms, these new "neuronets" group new information, which is easily remembered in the future. In this way, the brain has a greater information bank to draw from. (These findings have also been confirmed by the work of Dr. Joe Dispenza of *What the Bleep Do We Know* fame.) That way, a person can spend a greater amount of time discerning shades of gray. Using the sports analogy, we know there isn't much of a difference between the best and the worst teams. The best teams are only a few percentage points better in the fundamentals of whatever game we are discussing. But this is the big difference between being good and great at any particular endeavor.

Greatness comes over time as we learn sound methodologies and build on them to discern subtle ways of improvement.

With the proper effort and dedication, the material in this book will go a long way toward giving you the tools to allow your brain to chunk information and move you in the right direction.

A college degree is the equivalent of 120 credits of study. Because each class gives you three credits, and it takes an average of 45 hours (15 weeks a semester times 3 hours) to get through a class, it takes 40 classes to get a college degree. A college degree takes 1,800 classroom hours to accomplish. Of course, this doesn't include the hours of study that go into earning each class. Let's say it takes an additional 2 hours of study (including cramming for final exams) for each class for an additional 90 hours of study per class. That increases the time by 3,600 hours to get that degree. When we add 3,600 to 1,800, we come up with 5,400 hours. This confirms what Ericsson uncovered, because at 5,000 hours, who comes out of college at the mastery level?

Let's go back to the side business we discussed earlier. If you put that same 2 extra hours a day/12 hours a week into improving your life, after a year that will be 624 hours. This may be enough to get your business off the ground but not enough to truly prosper. After three years, you will have the equivalent of enough classroom time logged to earn a degree and by that time, you may

have established that your business can succeed. But the Cambridge study suggests a “10-year rule” for anyone to achieve greatness. Because this is a book about trading, no college degree is required. However, those people who suggest all you need to do is attend a weekend seminar or buy a particular software program to gain mastery are misleading the public.

With the proper effort and dedication, the material in this book will go a long way toward giving you the tools to allow your brain to chunk information and move you in the right direction.

Let’s equate this example to trading. There is no doubt about this; mastering financial markets takes quite a bit of time and energy. I’m talking about time and energy during trading hours and after trading hours. If you like to trade stocks, you’ll have to spend one to two hours a day studying charts every night looking for the right setups. If you don’t put the time in, you’ll always count on someone else to tell you what to buy and when to buy it. One well-known technician scans thousands of stocks every single day. This world-class level of preparation keeps him updated on the markets and helps him determine which stocks to buy. I also have to study the cycles on the indices every single day to know what is going on.

People who are just beginning are going to have to pick a methodology and learn it from top to bottom. You too will have to pick a methodology and come to a place where you trust your indicators 100 percent. When it comes time to pull the trigger, there is no time to think about it. You either do it or you don’t.

## Handling Losses

As you go through your trading learning curve, mental toughness really becomes your most important characteristic. It’s easy to pull the trigger when things are going well and you’ve been on a winning streak. What happens when you’ve been stopped out three or four times in a row? It is basic human nature to be a bit apprehensive after a losing streak. However, Douglas teaches us that we must use each opportunity in the market as a unique point in time that has no relationship to what happened before.

Let’s say your favorite chart now has a bearish MACD divergence and the fifth wave is approaching the 60–62 bar time window. On bar 63 we get a black candle bearish engulfing bar. What is happening right now



has nothing to do with what happened yesterday, last week, or last month. You know the market doesn't even know you exist, and here lies a unique opportunity in time to pull the trigger on a profitable trade.

Realize that you are going to get stopped out and maybe get stopped out several times in a row. The market doesn't know or care. If you are not mentally prepared to take advantage of the unique opportunity sitting before you in the present, you need to check your mental toughness quotient.

So how do you deal with losses?

Losses are part of the game; we all know that. As long as we always use stops and never allow ourselves to be buried, we'll be fine. We should always have the stop point in place before we enter a trade. Many traders put their ego and emotional capital in every trade. When it doesn't work out, they take it personally as if the market performed a personal attack on them. If the market doesn't even know we exist, how can that be?

Douglas (2000) suggests we treat trading as if we were the casino. Did you ever notice those disclaimers in the casinos that tell us the slot machines have a 97.4 percent payback? Do you know what that means? Every dollar you put in (statistically) pays out 97.4 cents. You then put back that 97.4 cents in the machine, and it returns you 90 cents. This process continues until the one-arm bandit has your whole dollar. In other words, the casino knows it's going to lose. In fact, it hopes to lose as it attracts more players. Every so often, someone has to win a million dollars or nobody would be interested. It doesn't know when it's going to happen, but the casino does know that it's going to win in the long run.

As traders, we can't get overly concerned about any one given trade or even a bunch. According to Douglas, we must measure our progress in groups of 20. This means that we take inventory after 20. Thus, we can observe our performance over time. We get to see the good, the bad, and the ugly. If a pattern develops that is detrimental to our progress or profitability, we make adjustments along the way. Then we look to get better over the next 20 trades. So we not only get to fix what's wrong, but we also avoid the trap of fear and loathing as we give up the need to be right every single time. Over time, we adjust and improve until our numbers get into the long run statistically. It is at that time we begin to operate just like a casino (Douglas 2000, 189–201).

## Accepting Responsibility

Thus far, we've covered topics like practice, preparation, good habits, passion, perseverance, and discipline. These characteristics apply to every walk of life. However, being mentally tough also means accepting responsibility for ourselves. This means not blaming the market, broker, software, the guy on TV, or any other person for your performance. If you pulled the trigger and it didn't work, you need to accept responsibility.

Realize that you are going to get stopped out and maybe get stopped out several times in a row. The market doesn't know or care.

Accepting responsibility for your own actions is a major step in the maturity process. Becoming a mature person is an important prerequisite to success in any walk of life. When you accept responsibility you go a long way toward controlling your own destiny. I know this may sound elementary, but take a look around at our society. It seems we live in a time where we are taught to blame others for our plight.

If you accept responsibility for your own success, you'll come to see how capable you are of accomplishing even more.

This is Mental Toughness 101. You now have an understanding that you need to choose the right vehicle for your life in order to persevere through every imaginable obstacle. By being honest with yourself, believing in yourself, and not deflecting blame you can stay on track through some tough times. Without these attributes, you have no chance. With these attributes, you may still have more mental garbage to clean up because life happens, and you need tools to overcome many of the obstacles that come your way.

If you accept responsibility for your own success, you'll come to see how capable you are of accomplishing even more.

## BECOMING A NONCONFORMIST

Not only do we have to deal with the external factors, but we also have to deal with our own DNA. What do I mean by that? Our brains have been wired to conform to others. Getting back to the psychology of the crowd, the reason it's so difficult for us to go against the crowd is that our brains have been wired for survival. The urge to conform seems to be wired as unconscious herding

behavior. It's part of our self-preservation instinct. A number of studies have been done on this topic, but the bottom line is that our brain stem controls impulses essential to survival: the limbic system controls emotions, and the neocortex controls reason. Our brain stem controls functions of instinct such as security, fear, pleasure, breeding, hoarding, and herding (Prechter 1999). The limbic system guides emotions that control behavior for self-preservation. According to Maclean, in Prechter's *The Wave Principle of Human Social Behavior and the New Science of Socioeconomics*, the limbic system is faster than the neocortex (reason) and also regulates the degree of emotions. This could be why our emotions tend to get the best of us many times.

Because we all have the unconscious urge to be liked, to belong, and to dress the same as our peers, we also have that urge to do the same thing as the rest of the participants in financial markets. Many times, that will lead to financial suicide. This is why people from other successful occupations such as doctors, lawyers, and business people fail miserably at trading or investing.

The other issue as Carlstedt (2007) proved is the intelligence factor. You would agree that doctors and lawyers are some of the most intelligent people in society. However, their intelligence does not prepare them to deal with the pressure of not conforming to the crowd. They've learned that there is a certain way to conduct business, a certain way to dress. They are not prepared to take trades when it seems to be scary to do so. Many will come to trading, find a trend, and pile on. They do this because it feels comfortable. Well, if it feels comfortable, it's probably wrong. No wonder so many people buy tops and sell bottoms.

One of my early mentors was Bill Williams who wrote *New Trading Dimensions: How to Profit from Chaos in Stocks, Bonds, and Commodities* (Wiley, 2001). He discusses a phenomenon called "Joe Gremlin." According to Williams, Joe Gremlin is always sitting on our shoulder waiting to sabotage us. He is that little voice that says you are not good enough, smart enough, rich enough, or good looking enough to deserve success. He'll find a way to sabotage you into passing up the right setups and getting into the wrong ones. Why is Joe Gremlin there? Most of us have been affected by the factors listed in the early part of this chapter. For one thing, we have that conformity issue to overcome. Joe Gremlin is that

critical voice inside your head designed to keep you out of trouble. He is your parent that told you to keep your finger off the hot stove. He is also there to tell you to put the parachute on if you are going to jump out of an airplane. That is, if you are able to get past that little voice that is warning you not to do it at all. Joe Gremlin is there to be sure you avoid risks.

When it comes to financial markets, the biggest apparent risk is going short after a huge rally, and the folks on CNBC are getting out the party hats. Likewise, it's also when Maria Bartiromo finally told us it's safe to short stocks on October 10, 2002. That little voice is going to tell you not to do it. This process repeats itself on every chart in every time frame every single day. You need to be able to make peace with your gremlin. According to Carlstedt (2007), if you have a high degree of hypnotic susceptibility, you will be able to put Mr. Gremlin in his place.

Assuming you can tame that gremlin, there are still those factors listed earlier. I'm here to tell you that if you are in a life crisis, you probably shouldn't be trading. Not in the short term. If you need help, by all means get it. I have an old acquaintance whose wife was dying from breast cancer late in the NASDAQ bubble period. This individual went short the NASDAQ futures contract in fall of 1999 when tech just began its historic rise from 2000 to 5000. You heard right, this individual was short. Obviously, he wasn't the greatest trader to begin with, but on an unconscious basis, he went into a supreme case of denial concerning his position, and as the losses mounted, he refused to turn on the computer. Obviously, this individual was going through the loss of a spouse and quite possibly was losing the money as a way of self-punishment. For whatever reason, this individual lost nearly \$190,000 at a time when others were making once-in-a-lifetime fortunes.

## LIVING IN THE PRESENT

Hopefully, most problems we deal with from one day to the next are not going to be at such a gargantuan level. Of course, we do carry the baggage from our experiences.

To be sure, some are easier to overcome than others. For the ones that are easier to overcome, Williams suggests an exercise you are to do every morning on arising: get out a notebook and write three pages.



What we want to do is  
learn to live in the present.  
The present is all we have.  
Life is just one long series  
of present moments, and to  
the degree we stay in the  
moment is the degree that  
we give ourselves a chance  
to succeed.

Why write? Williams takes us through a process where we have to become more aware. Being aware means living in the present tense. Most of us don't spend nearly enough time in the present. Are we thinking about the death of a spouse or a parent? Are we thinking about that job opportunity we lost six months ago? Are we thinking about a girlfriend or boyfriend that may have just left? Worse, do we go around plotting revenge?

Not only do we think about the past, but we also project into the future. For many of us, that means having an expectation that the future results are going to turn out the way the past did. In other words, we expect that if we've always lost money at trading, we will continue to do so because that's all we know. Some people have an expectation of winning; many don't. Many of us spend way too much time rehashing old events or worrying about things that haven't come to pass and may never come to pass.

What we want to do is learn to live in the present. The present is all we have. Life is just one long series of present moments, and to the degree we stay in the moment is the degree that we give ourselves a chance to succeed. Check out this statement:

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## *Opportunity is nowhere*

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You can look at the following statement in two ways. You may have seen this exercise before:

OPPORTUNITY IS NO WHERE

OPPORTUNITY IS NOW HERE

Williams (1998) tells us that if we saw the first statement, we are making a projection about the past or the future. It is judgment based on our environment or experiences in life. If you saw the second statement, you are living in the moment. The important thing to realize about life as well as financial markets is that this moment is unique and unlike any that has come before it or will come after it. It will never happen again. The rich and poor alike all have 168 hours in every week. All we have is time. What mat-

ters is what we do with this time. Some of us think our time is worth \$7 per hour; others, \$50 per hour; and others value their time at \$1,000. How can you increase your value? Learning how financial markets really work is one good way to do it. Let's just say that if you are trading the NASDAQ futures contract at \$100 per point, you can accumulate funds really quickly.

The point about financial markets is that they are a mechanism of chaos theory. According to chaos theory or The Wave Principle, patterns may repeat continuously with similar tendencies, but no two patterns are ever exactly the same. What that means is that each pattern we encounter on a price chart offers us a unique ability to make a profit that will never happen again.

The best part is that we have no idea what will happen. We think we know what is going to happen, but how many times has a move in any time frame gone much further than we ever thought possible? We were expecting a 5-point move that turned into a 15-point move. We expected an 8-day rally that turned into a 21-day rally. We may have expected a 55-day rally that turned into a move that lasted 2 years. These things happen all the time. The point is that we have to approach each situation as unique, live in the moment, and not prejudge a situation.

How many of you have ever heard of Leonard Orr? Leonard Orr was an abundance trainer/guru in the 1970s before anyone heard of Tony Robbins. His mantra was, "we don't have the luxury of a negative thought." He taught his students to record every single thought they had on rising in the morning, and they were not to leave the house until they could get rid of their negative thoughts. Because most of his students had regular jobs, I'm sure you can appreciate how expensive this exercise could become. If his students didn't expunge those negative thoughts, Orr believed they were unfit to contribute to their jobs. His students either shaped up or shipped out very quickly.

What we want to do is start releasing the past and living in the present. There are various methods of doing that, but writing those three pages a day is a good start.

According to chaos theory or The Wave Principle, patterns may repeat continuously with similar tendencies, but no two patterns are ever exactly the same. What that means is that each pattern we encounter on a price chart offers us a unique ability to make a profit that will never happen again.

What do you write about? Anything, everything, and nothing; it really doesn't matter. You write whatever comes to mind. What you'll find is that if you do this exercise you'll clear much of the mental garbage in your brain that is floating at the surface. By writing three pages, you will take Joe Gremlin straight on and maybe for the first time understand why he is sabotaging you. By writing those pages, you may find that you are not comfortable with the trading platform, the software, the broker, the current trend, or whatever the situation is. Joe Gremlin might admit you don't deserve to be successful because of something your 8th-grade teacher told you. Isn't it ridiculous? When you finally deal with that particular issue, the voice of sabotage starts to go away. That Gremlin may also reveal to you a particular defeating pattern that you'll be able to overcome.

What if you can't think of anything to write? Write that. Start by saying I can't think of anything to write. Just by starting, things will come to you, and you'll fill up three pages very quickly. You'll be surprised by what emerges. This also happens to be an inexpensive form of psychotherapy. Sometimes all you need is an outlet for your less productive ideas, and they go away.

What happens when you begin to write is that the mental garbage sitting just below the surface rises to the top. Most of us think out of sight means out of mind. Nothing could be further from the truth. As I've stated throughout this chapter, we are deeply influenced by our environment and experiences to such a degree that many of us aren't even aware of it anymore. We need a mechanism for getting the crap up to the surface and out where it can't cause us any trouble. Writing those pages is an excellent way to do it. As Williams states, what we need to do to overcome our gremlin is simply become aware. When you are writing, you are aware of every single thought you have. It is a good way to monitor your thoughts because you'll find that you'll write rambling prose, which turns out to be one thought after another.

You'll write about what is bothering you and what is working for you. I'm not saying you can't have negative thoughts; you will. What will happen is that you'll allow them to rise to the surface.

What we want to do is start releasing the past and living in the present. There are various methods of doing that, but writing those three pages a day is a good start.

Once they rise to the surface, they go away. That's the point. The more crap you can eliminate on a regular basis, the better off you are. What you'll also find is you'll have running conversations with your gremlin, and it will actually tell you what it needs from you to go away.

Let's say your gremlin is telling you not to go short after a long rally phase. You'll tell it that you will wait for the right number of bars to elapse and only do so when there is a negative bearish divergence in the MACD. See?

Prior to reading this book you may have been in a position where you would always go short prematurely because Joe Gremlin was trying to protect you. Now you have new information and have just built a case for your inner voice to say that it is safe. You'll have a new paradigm to act on as opposed to not acting on anything at all. When you allow that particular conflict to come to the surface, it will cease to be a problem. When the situation actually presents itself in real time, you won't have to think—you will just get into the process. It's not that hard to increase your hypnotic susceptibility when you know what to do. When you get into the process, you can get yourself into a flow state.

## EXPLORING DIFFERENT METHODOLOGIES

Writing three pages isn't the only method, but it is an easy way to act if you are dealing well with major issues in your life. If you aren't, I recommend different methodologies that range from Neuro-Linguistic Programming, hypnosis, energy work, or The Sedona Method.

The whole idea behind these methodologies is to change our belief systems. Our emotions derive from our beliefs. What we believe is not necessarily reality. If our beliefs don't align with our goals, we are not going to achieve them. It's as simple as that. You may have had to deal with some of the issues in this chapter and think you have moved on. More likely, there are still lingering layers of garbage you haven't addressed.

The whole idea behind these methodologies is to change our belief systems. Our emotions derive from our beliefs. What we believe is not necessarily reality. If our beliefs don't align with our goals, we are not going to achieve them. It's as simple as that.



## NLP

Neuro-Linguistic Programming (NLP) is designed to interrupt a negative pattern and install more productive patterns. The theory behind NLP is that we become anchored to certain beliefs because they remind us of other beliefs. That's why you certain emotions come to the surface when you think of certain people. That's also how advertising works. Think of that little gecko on television and you come up with Geico car insurance. People eat things in excess that are not good for them like pizza or chocolate because they come to associate the feelings of security they get in times of a life crisis. How do you break that pattern?

According to NLP, a practitioner will install a program so that every time you think of chocolate or pizza, you will associate it with rotten eggs or dog feces. The practitioner will install new beliefs and patterns of a person who behaves in a healthy manner. NLP can be used for just about any bad habit, fear, or phobia, or to change belief systems about money. It can even change your belief systems about trading. Let's say you are part of the 90 percent who lost all of their profits from the 1990s bull to bear market in 2002. Many of these individuals walk around with scars from that period. Many of those people quit the stock market forever. NLP can interrupt the belief systems that emerged during that time (Robbins 1986, 83–165).

It's very unfortunate, but a whole generation of people grew up believing that financial markets only went up because their only experience with stocks was from the late 1990s. Once these beliefs were instilled, they were ill-prepared for the fact that the NASDAQ gave back 80 percent of those gains in a little over 2 years.

## Hypnosis

Hypnosis may also be an avenue because the methodology works on our unconscious mind. A practitioner will put us into an alpha state of deep relaxation where our subconscious mind is most receptive to new ideas. Our mind doesn't know the difference between fact and fiction. It will believe anything we tell it or program it to believe. Hypnosis can be used for the same things as NLP. It can be used to change bad habits such as smoking, drinking, eating, gambling, and drug abuse. It can even be used

to change our self-image. The result becomes weight loss, greater happiness, health, and a more abundant mindset.

## Energy Studies

There is now a new field or industry of individuals practicing energy work. In a nutshell, practitioners of energy work believe that we all vibrate at a certain frequency. When we think thoughts of hate, anger, envy, jealousy, revenge, lust, fear, grief, and judgment, we are operating at a lower frequency. When we think thoughts of love, giving, joy, compassion, peace, confidence, and courage, etc., we resonate at a higher frequency.

Success in any endeavor resonates at the higher frequency levels. What energy workers do is re-pattern their frequencies to resonate at the higher levels so they can enjoy greater success in their lives. Doesn't it make sense to realize you aren't going to make money in financial markets if you carry thoughts of fear around with you? If you can't pull the trigger at points that go against that social herding instinct, you are doomed before you start. Now you may begin to understand why we've spent so much time in this chapter breaking you down before giving you the tools to put you back together.

One such program is Holographic Resonance Repatterning. This methodology assumes we are all vibrating at a certain frequency similar to that of a radio dial. Do you resonate with sports, politics, or music? In terms of your own radio dial, do you resonate with fear, anger, grief, lack or joy, courage, serenity, and abundance? Whatever you think about most is what you will be attracting into your life. If you are not resonating where you need to be, it can be changed. The practitioner will work with you to change your station much like you do when you flip through the dial. Resonance re-patterning takes things a step further by assuming many of your patterns are generational. They believe your current behavior may have been passed down by your grandparents or even by your great grandparents. Using certain modalities like light and sound, they can interrupt those negative patterns and have you resonate with the vibrations that are compatible with your current goals in life.

In order to understand the Wave Principle, Chaos Theory, quantum physics, or Lucas Waves, we must go through a process of letting go and living in the present moment. To succeed in financial markets, we must check our old limiting beliefs at the door.

## The Sedona Method

Finally, my favorite program has become the Sedona Method. I recommend you read the book that was on the New York Times bestseller list. However, it was inspired by Lester Levenson who was a physicist and successful businessman. At age 42, he had many serious health problems including two coronaries. According to the book, his doctors sent him home to die. This was in 1952. Mr. Levenson didn't give up. What he discovered was that the key to his recovery was a process of releasing or letting go. I'm not going to describe the processes here, but Mr. Levenson recovered to live another 42 years in great health.

The Sedona Method is most compatible with everything we've discussed in this book because in order to understand the Wave Principle, Chaos Theory, quantum physics, or Lucas Waves, we must go through a process of letting go and living in the present moment. To succeed in financial markets, we must check our old limiting beliefs at the door.

When you learn the Sedona Method, you come to realize that all of your limiting beliefs and behaviors are a result of a layer of conditions you may have been brushing under the rug for your entire lives. We learn to peel back that onion and as we release our problems, they float to the surface and go away. Like the other methodologies, the Sedona Method can be used for changing bad habits, weight loss, fears, and phobias, and to develop the proper attitudes toward money and success.

I put this chapter in this book because no matter what system you use, it will be of no use to you unless you are able to take control of your mind. You must understand that when it comes to trading, you are competing with yourself. You need to understand why you pulled the trigger. You need to realize that the behavior you exhibit while you trade represents who you are at your core. By bringing the proper mindset, you are qualifying yourself to be at the starting gate. This is not a bunch of psychobabble or academic theory. We all have issues that keep us from performing at our best. We need to be able to perform when the pressure is on.

Not only do we need to perform, but also we need to do it in a relaxed state of mind.

The problem for many traders is that they have no clue how their beliefs, instilled by their environment and life experiences, will affect their performance. When it doesn't work out, they just continue playing whatever script they brought to the table. In the end run, they'll blame the market, the broker, the stock-picking service, the war in Iraq, or anything other than themselves. Worse, they'll be wrong because everyone needs to accept responsibility for their own action.

To summarize, we need to understand where we came from and where we are going. If there are life issues to deal with, get the help you need. Go for therapy or counseling if that's appropriate. If you want to try one of the methodologies discussed in this chapter, I hope I've opened your mind into thinking outside the box. There are many alternatives. Once you are actually prepared to trade, you'll have the right mindset to produce the proper mental toughness needed to get through it. Trading is never going to be easy, but it can be simple. Now that you've been mentally equipped to participate, the final chapter is going to tie together some of the higher probability setups so you can start using this wonderful methodology.





# 1 1 | PRACTICE MAKES PROFITS

If you are still with me, congratulations! As you've seen, this book is not an easy read, and it's not supposed to be. There are dozens of charts, and you are supposed to study them repeatedly until you get it. We haven't mentioned money much in this book because I believe that to get the money you have to keep your eye off the prize. To get to the money you have to be absorbed in the process.

This book is about the process—the process of understanding how financial markets actually work. It's up to you to do the work from here. You are now also in a position to see that I'm not advocating you turn everything you've done up to this point upside down. Whether you are an Elliottian, a moving average trend follower, a volume studies practitioner, or a disciple of any other method; these all deal with “what” to do. This book primarily deals with “when” to do it.

Athletes spend years in training to get to the professional level. Once they get to the show, they burn the midnight oil studying the opposition and refining their own technique. Baseball pitchers have certain mechanics that they must use and have coaches filming them to see whether there is

a flaw in those mechanics. It's the same with football, hockey, basketball, and any other professional sport you can think of. These professionals don't worry about touchdowns, home runs, 3-point plays, or winning the championship. They all know the same thing. If they take care of the process, the winning will take care of itself. It's the same thing with financial markets and trading.

For this reason, I've kept your eye off the prize. The prize is making money, being profitable, and achieving your financial goals. I'm here to say that I believe you can make a lot of money using the information in this book. You now have in your hands an incredible pattern-recognition system, perhaps the best one on the planet.

However, I also know the flaws in this system and your learning curve to get there. It's my goal in this chapter to alert you to the pitfalls so you don't have to make many of the same mistakes I made along the way. I'm doing well with this methodology, but there is no reason why you can't do even better. It's all up to you.

Through the rest of this book, I'm going to show you some of the highest probability setups using this methodology. I realize I've thrown a tremendous amount of information your way here. For many of you, it's the first time you've ever seen this methodology. There's so much information here that you can get that paralysis by analysis and do nothing. That's not my goal. It's also not my goal to have you think that all you need to do is count the bars on the way to your fortune. It just doesn't work that way.

## **PRACTICE PATIENCE**

One of the hardest things I had to learn along the way was to realize that just because a chart moved 21, 34, 55, 161, or any other important time bar we discuss in this book, it didn't mean the chart was necessarily going to change trend right there. These are high-probability points, but haven't we spent the last 80 pages combining methodologies?

What I've come to realize and want to hit home to you is that first, we need an appropriate time bar, and then we need to see the chart react to that time bar before we act. That might mean you will have to have more patience than you've ever had before. That might mean there will be times

where you will be out of the market, especially when it comes to Forex trading.

What this also means is that when you are in, you should have the confidence and conviction to stay in because you'll know this is how these markets really work. The problem many traders have, and I know because I've been there, is pulling the trigger on a trade. Nothing happens and you exit the position too soon only to see the market go without you. This happens to traders because they really aren't confident enough to hang in there because there was an element of doubt as to whether they should have been in the position in the first place. Most traders lose money—not because they can't trade, but because they trade too much and lose money. The vast majority of setups are mediocre at best. You can't be involved in setups that are mediocre. If they work out, it was luck whether you like hearing it or not. We are not here to gamble. We are here to take advantage of opportunities that give us a high-probability chance of winning. We want to follow a process and a discipline. We want to do the basics well. If we can do that, the money will take care of itself.

Before I go into these setups, I hope you now realize why I put a chapter on psychology as the next to last chapter of this book. Most trading technique books will toss in the obligatory trading psychology chapter at the very end as a throw-away. I want you to know that I don't think any of the setups I will show you in this chapter will be of any use to you unless you are psychologically prepared to take advantage of them. That means that you should be mentally tough before you put your bankroll on the line. Some of the steps that successful trading requires from you to pull the trigger can be accomplished only by someone who is psychologically prepared to do so. I've also given you enough choices to do your own due diligence and get help if that's what you need.

Another thing: some of you who overtrade really have never seen what a real high-probability setup looks like. You've never been taught what to look for. The setups here may be similar to other Fibonacci books, but none of them include the time function the way we have together over the course of this book. That's why I

We are not here to gamble. We are here to take advantage of opportunities that give us a high-probability chance of winning. We want to follow a process and a discipline. We want to do the basics well. If we can do that, the money will take care of itself.

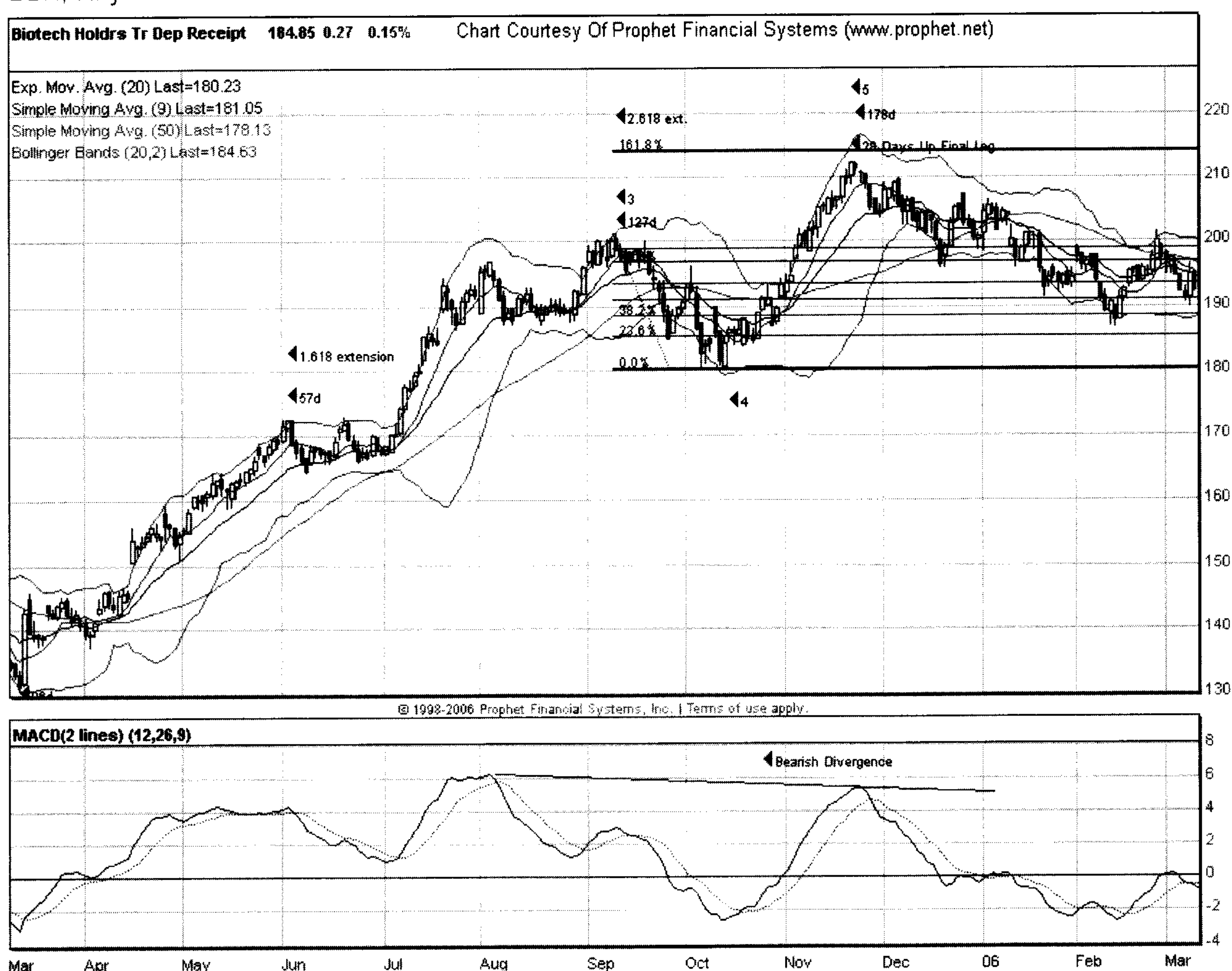


am confident in saying that most of you will be seeing these setups presented this way for the very first time.

This is not a black-box system. In this book, I am teaching you how the most misunderstood area of technical analysis works. For those of you who are newbies, you are learning correctly the first time. For those of you who are already seasoned, profitable traders, you'll probably increase your effectiveness by 10 percent or more. Remember, we are about process in this book, and part of the process is having fun. Let's get the party started!

### Figure 11.1

BBH, daily



## HIGH PROBABILITY SETUPS WITH MACD DIVERGENCE

Some of these charts we've seen before and some we haven't. The first concept is combining the time element with the MACD divergence. We've spent a great deal of time on that concept in this book. It's easy to do, but it requires patience. If this were the only technique you use, at the very least, you will greatly reduce the number of times you get stopped out by being early.

### Biotech HOLDERS

Figure 11.1 is a daily BBH chart. As you can see, there are two bearish divergences on this chart.

At the point where I have the top of the third wave, you can readily see the MACD has not confirmed that high. Those of you who are more aggressive can take a short-term short trade. This is the first small bearish divergence from the high at the beginning of August. You take the trade because bar 127 confirms the bearish divergence as the chart responds to the time window. Obviously, by the time you get the bottom of wave 4, there is the white candle bullish reversal piercing signal that confirms the low in the middle of October. If you were short up to that point, those would be the types of signals telling bears the party is over. At the top, with the bigger divergence, we have a cluster of 28 days to the last leg, which clusters with 178 days overall. I believe that only the more aggressive of you should attempt to buy into a fifth wave. When you do, follow the MACD. If it doesn't confirm a new high, you should realize we should be getting near a reversal.

In any event, when you get to the 178/28 day cluster, wait for a reversal **BELOW THE LOW OF THE LAST WHITE CANDLE** before taking the trade. The important point about entries is that we want to allow the time window to be confirmed by the candlestick. There are usually two bars. Wait for the reversal to occur, and then enter below the white candle in a bearish reversal and above the black candle in a bullish reversal.

The next chart (Figure 11.2) is the BBH on an hourly basis for a shorter time frame, but the principles are all the same. As in every case, you need to get into the habit of measuring pullbacks, as many times the final leg

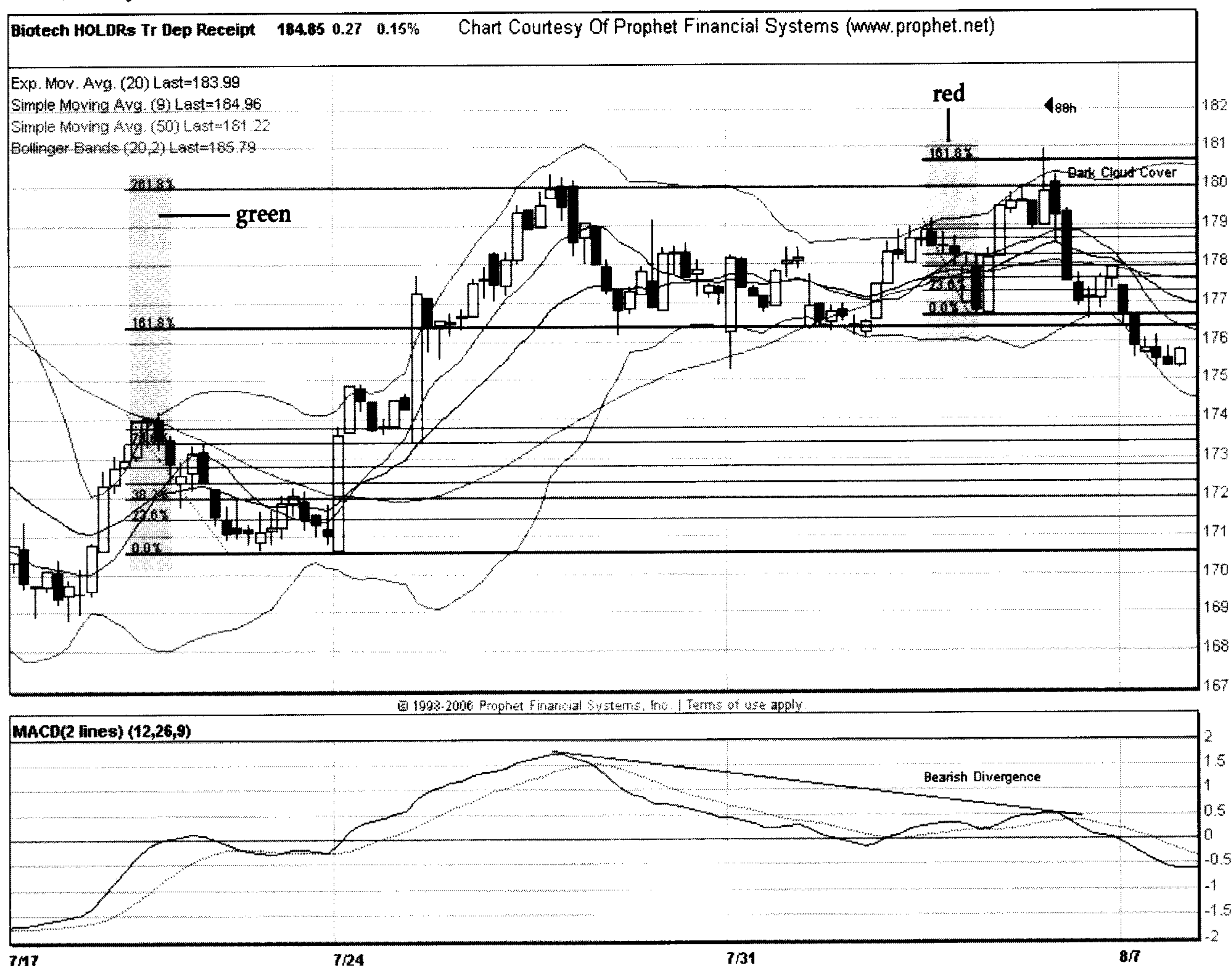
will be either a 1.618 or a 2.618 extension of that pullback. This methodology is excellent for topping or bottoming price point targets.

In this case, we have the bearish divergence developing on the MACD, but we don't consider acting until we get a good time bar. The 88–89 bar window gives us a dark cloud cover reversal signal.

Notice the red Fibonacci lines as well. As you can see, the chart tops within pennies of that last 1.618 extension point. Let me remind you that you are looking for as many of these relationships to line up in the same place. These are the kinds of clusters that create turns in all degrees of trend. Your entry should be below the low of the white candle at the 88-hour bar. By that time, you can anticipate the bearish setup because the hourly bar is almost expired.

**Figure 11.2**

BBH, hourly chart



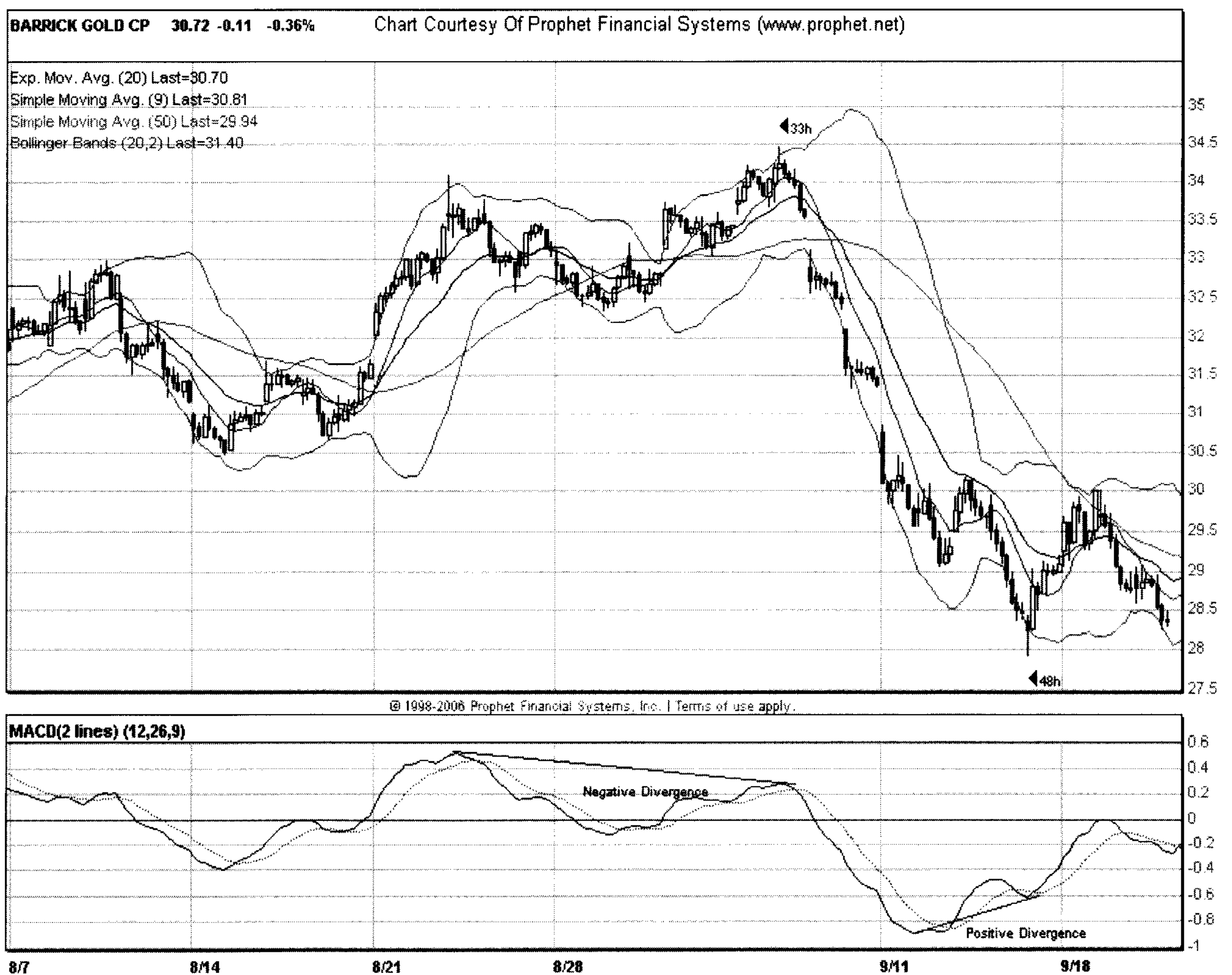


## Barrick Gold

Do you need all of these factors to line up? Well, no, but the more factors lining up in your favor, the better chance you have to win. I'm showing you the best setups and what to look for. One of these factors may be missing, and the chart could go anyway. In my opinion, you can still make money accepting less than the optimal conditions, but if it works out for you, it's more more gambling than trading.

Figure 11.3 is a Barrick Gold hourly chart. We have two good setups here. The first one has a bearish divergence, and it tops in the 34-hour time window. It leaves a good upper tail with a bearish engulfing candle on the

**Figure 11.3**  
Barrick Gold, hourly



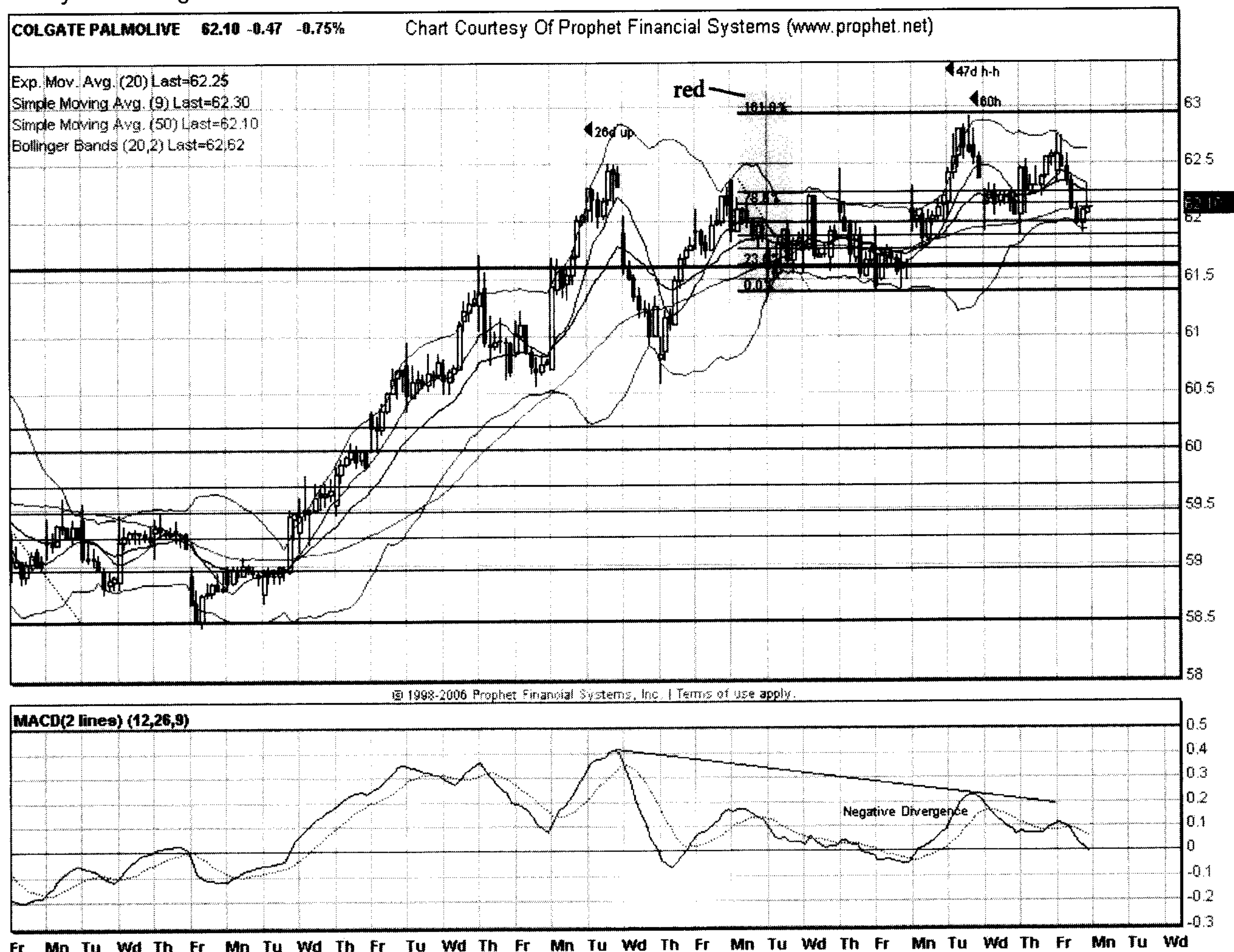


next bar. You should enter just below the low of the bar with the tail. As you can see, that sets up a beautiful short. Then at the bottom, a positive divergence develops in the 47 (Lucas)-hour time frame. We get a beautiful bullish engulfing bar on the time window.

Tails are a bit different. You shouldn't wait until the white candle completes, because your stop (which should be below the low of the tail) is too far away. If it goes against you (and sometimes it will), your loss will be relatively large. You can enter once the white candle gets above the high of the final black candle with the tail. When you have a tail like that, once the high gets taken out, you have a good chance a low is in.

**Figure 11.4**

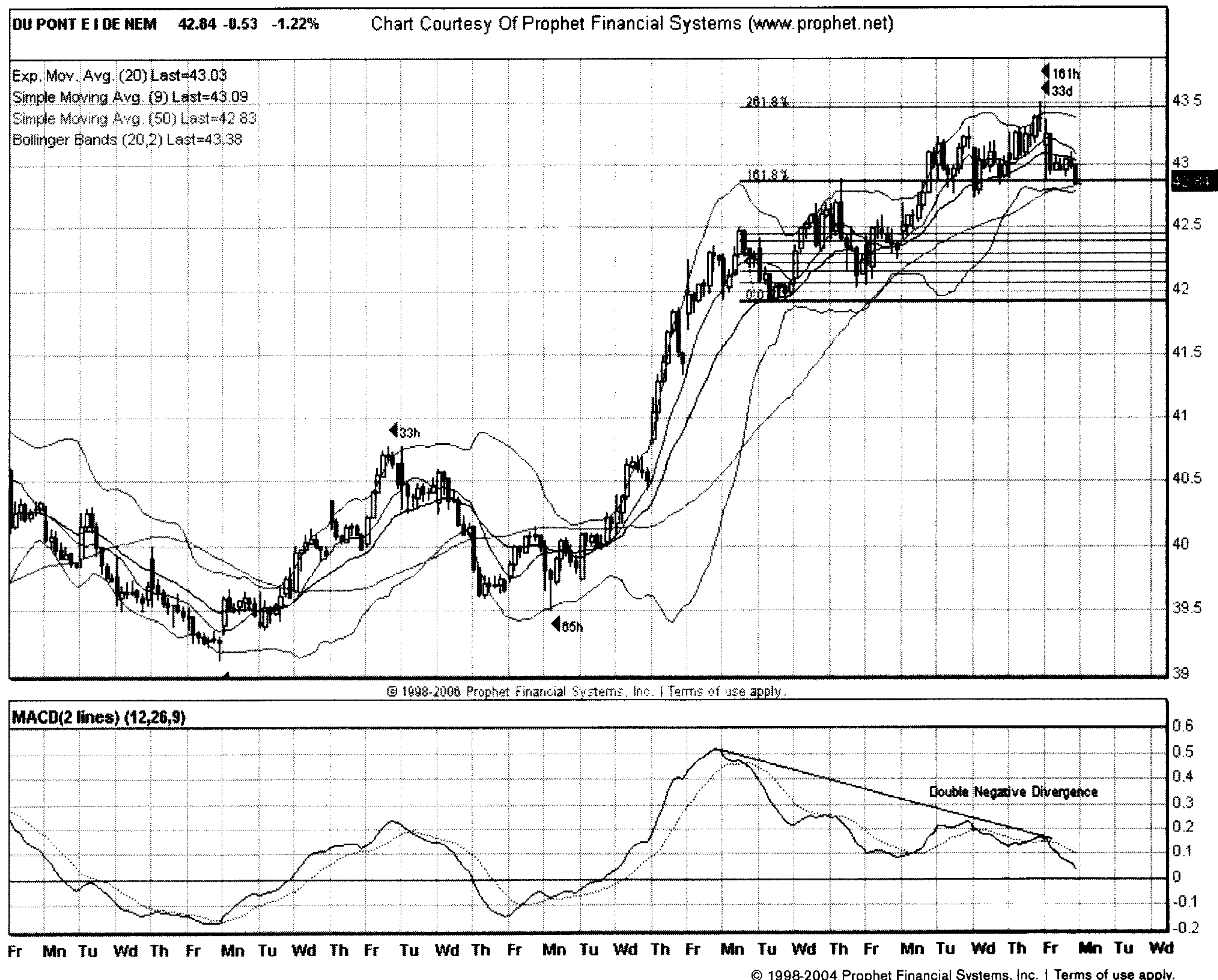
Hourly of CL-Colgate Palmolive



## Colgate Palmolive

Check out the next chart, which is an hourly of CL-Colgate Palmolive (Figure 11.4). There are several interesting factors going on here. This is an hourly chart, but it is derived from a daily chart that isn't shown. We are at a 26-day top where the MACD peaks, and we also make a higher high on the 47-day, high-to-high cycle. The second top is also accomplished on the 60th hour of the final leg, and you can see the red Fibonacci lines target the 1.618 extension of the last pullback at price point 63 as the target for the turn. That 60th hour (scaled down from the daily chart), leaves a tail on the 47th day of a high-to-high cycle, which is a really good cluster point. The best place to go short is below the low of the 60h bar with the tail.

**Figure 11.5**  
DD-Dupont, hourly



Remember, the signal comes about when you get the reversal to confirm the time window. Once you clear it, that is your entry.

What you want to do in this case is watch the daily and then scale down to an hourly chart to be able to pull the trigger where you have the signal and where your risk is the lowest. If you followed this, the recommended entry received a bonus the next morning when the stock gapped down.

## DD-Dupont

The themes of this book are drill, practice, and repeat; then do it some more. I'm presenting these various charts so you will see that these setups are not flukes. There are thousands of charts, and they appear every single day. All you have to do is find them. Figure 11.5 is DD-Dupont. We show an hourly chart, but we have the daily annotations on them as well.

Here we have quite a bearish divergence. It tops on a beautiful cluster of 161 hours and 33 days inside that 34-day window. Not only do we get a perfect MACD/time cluster setup, but also we have the Fibonacci 2.61 extension of the pullback working in our favor. But, here's one of the pitfalls. As that bearish divergence is developing, we have three small pullbacks near the top. On which do we stick the Fibonacci extension calculations? The truth is we don't really know which pullback the market is going to validate as the top. Because we don't know the answer to that question, we have to measure all three corrections. We have to let the market tell us which one is the right one.

In this case, it's the first one off price point 42.50 down to the 42 area. At first, it hits the 1.618 extension point and pulls back. Why wasn't that your trigger? It might have been considering that high is 122 hours (Lucas 123-1), but we are only at 27 days to the trend. Therefore, when we hit a time bar on the hourly basis but not the daily basis, it is likely to be a smaller pullback. You could have taken that signal, but you would have been stopped out. A 33-day/161-hour cluster is much better than a 27-day/122-hour cluster. In all cases, the signal comes when we take out the low of the white candle or high of the black candle if it's a bottom. Remember, the signal comes about when you get the reversal to confirm the time window. Once you clear it, that is your entry.



On a scale of 1 to 10, I hope you can apply some thinking and realize one setup is much better than the other. I'm not saying you shouldn't have taken the first one, but I want you to see what separates decent or mediocre setups from truly good ones. Sometimes it just requires some patience and willingness to pass an opportunity.

## Silver

It's the same thing on Figure 11.6. As we have a complete ABC flat-pattern correction that ends on the 262nd hour of the pattern, we lift off to the final high of the sequence, which is the one that validates the bearish MACD divergence. In this case, we have a larger corrective pattern to sink

**Figure 11.6**

Silver Futures, 1.618 extension





our teeth into, and you can readily see the high comes in perfectly at the 1.618 extension of that correction. It does so on a 17-hour (Lucas 18–1) final leg, which in the larger picture clusters with a 79-day cycle. On tails, the entry is above the tail, and you can set your stop ideally below/above the tail.

If the tail is extraordinarily large, you can place the stop below the white candle in a bullish reversal or above the black candle in a bearish reversal. If you do that, you may end up getting stopped out after all because the end of the tail really is the proper place. However, if the tail prevents you from taking the trade in the first place, the risk of a small loss may be better than missing a potential big move. The choice will have to be yours, and it may

### Figure 11.7

Arch coal, 1.618 of B wave  
for end of C wave



depend on market conditions. Remember that if the tail is too big, you can always adjust your stop by scaling down to a smaller time frame.

Are you getting the hang of this? I hope so, because when you know what to look for and have the confidence to know this is actually what you are seeing, you will learn to trust it much sooner. Since I had no mentor, I had to come to trust these setups on my own, and it takes time. To wrap up this first section, you want as many bullets as you can get. Strive for all of them: divergence, time calculation, and Fibonacci target. Since the market doesn't always give you a perfect setup, you may elect to pull the trigger if there is no divergence (especially if you tend to be more aggressive). However, realize that if you pull the trigger without a divergence, you should be scaling down to a shorter time frame ready to exit much quicker. If you are following a chart on the hourly time frame, and have the Fibonacci target and time bar, you may have to scale down to a 15-minute chart to get a divergence. If you scale down the time frame, you'll always find a divergence, but the trade and profit will be smaller.

### Trader Tip

You can stay short with a trailing stop just as you can stay long in a bull phase with a trailing stop. Let the market take you out as you let the winner run.

## CALCULATING HIGH PROBABILITY TARGETS

Measuring extension points from various retracement levels for target-setting are not as numerous as divergence plays, but they are very reliable when you do catch them. Let's look at a few case studies to illustrate the point.

### Arch Coal

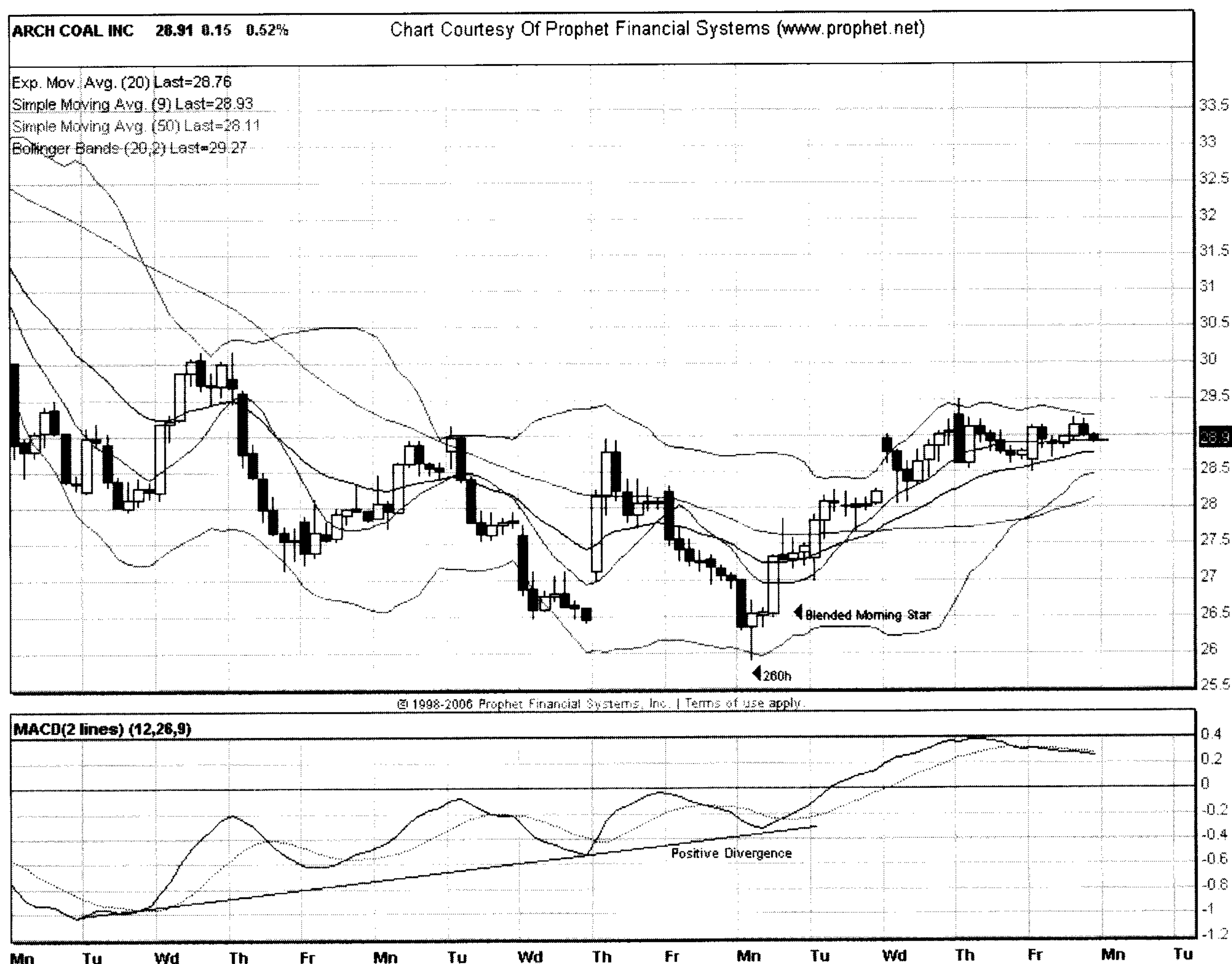
One of the more important target-setting exercises is measuring B waves for a target for the end of C waves, as seen on this chart of Arch Coal (Figure 11.7). As you can see from the Fibonacci lines, we got a very good target near 26 for the low. We haven't spent much time on exit strategies here, but you can stay short with a trailing stop just as you can stay long in a bull phase with a trailing stop. Let the market take you out as you let the win-

ner run. Having drawn the Fibonacci 1.61 target well in advance, you'll have a very good idea where this thing can bottom. Finally, at the low, you have a cluster of Fibonacci price targets, time, and a blended morning star pattern. That is a good clue you should be out of your short positions if you weren't taken out already by the choppiness as we approached the bottom.

There is also another factor going on here. If you take the first wave down from approximately 40–34 and measure from the B or second wave high at the 90h mark, you will see a projection to 26. That area also represents the 1.618 common price extension we covered in the first part of this book. The common Fibonacci price extensions don't necessarily line up

**Figure 11.8**

Arch coal, close up of the action near the bottom





with these advanced Fibonacci calculations, which measure the extension of a correction. Sometimes they do, and when you get a cluster of both methodologies lining up in the same place, you have a very high-probability turn. Get used to drawing the extensions of both common Fibonacci extensions and the advanced calculations. What you will generally find is one area where everything lines up—that will be your high-probability turn point.

What Figure 11.8 shows you is a close-up of the action near the bottom on the same chart. I want you to see the blended morning star candle on the 260th hour of the pattern and how the big white candle engulfs the preceding five black candles on the way down. In this case, you have

**Figure 11.9**

Beazer, cluster of 2 extension points off corrections



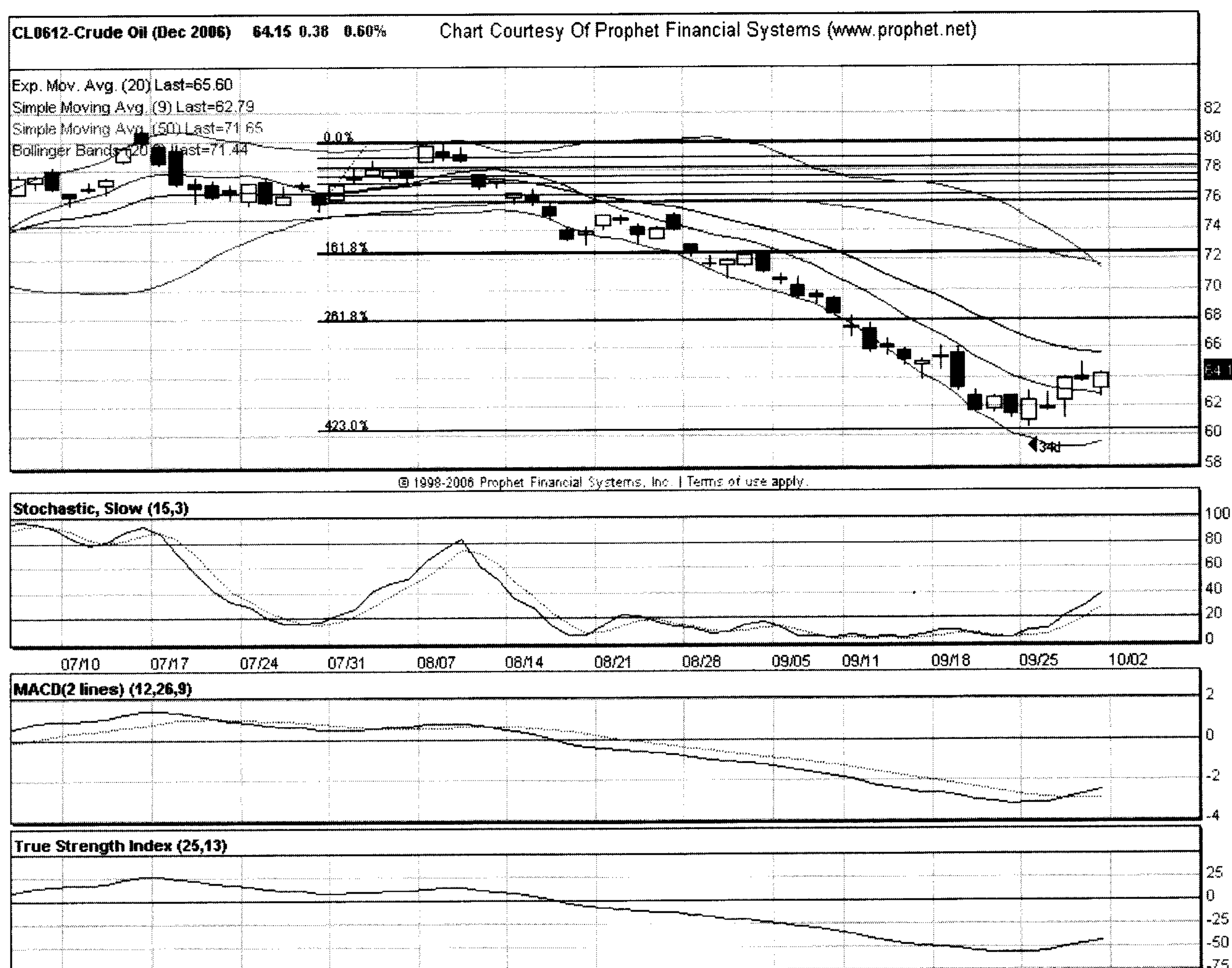


a larger degree target derived from two Fibonacci extension points, an hourly time bar, and a beautiful MACD positive divergence. You have a tail and can buy in once we get above the high of that 260h bar, which is around 26.60.

Many traders have never seen setups expressed with this type of detail. This is what they look like. Other books will give you the common Fibonacci extensions, and a couple of others may even give you the extensions off the B wave earlier in the pattern. But none of them combine that with the 260th hour of the pattern. Some books on candlesticks will give you the morning star, which is okay, and others will give you the MACD divergence, which by itself is not a signal on which you can act. However,

**Figure 11.10**

Crude Oil (4.23 extension)

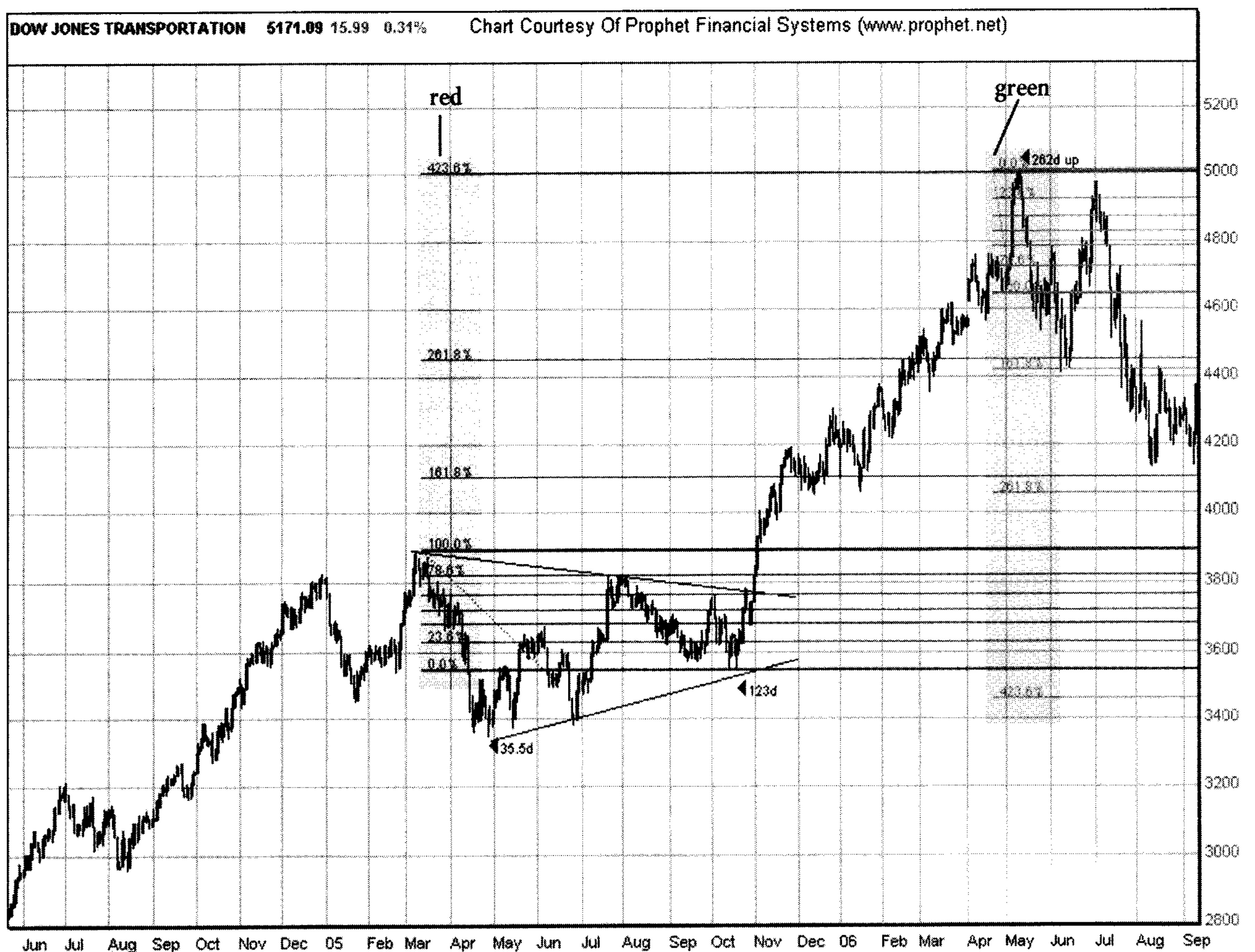


when we combine all of the factors in this chart, we have an incredibly strong pattern-recognition system. It is almost unbeatable. I say that because there is no such thing as a 100 percent, iron-clad guarantee when it comes to financial markets, but this is as close as you can get.

## Beazer Homes

On Beazer (Figure 11.9), we have a cluster of 2 extension points off corrections. Like its cousin the B wave, the extension measurement off a second wave many times will give us a price point that targets the end of the entire pattern. We've seen that earlier where the measurement off the B wave was a very close target for the entire bear market in the NASDAQ

**Figure 11.11**  
Dow Transports



from 2000 to 2002. This chart speaks for itself. Observe how the pattern completes right on the 161st hour of the second half of this pattern as well the 165th day of the entire pattern. Note that there is also a small divergence with the A wave low near 8/14 on the 47th hour. There is another divergence again on the week of the 8/21 which is on the 39th hour. That particular bar is a high-wave candle—it implies uncertainty to the downtrend at that point and a small corrective move up begins. Only the most aggressive traders should play something like that. Finally, the two white candles at the bottom (a bullish piecing pattern), show the point where you can go long. The entry is above 37 just higher than the first white candle as you clear the black candle.

## Crude Oil, Dow Transports

### Trader Tip

When a drop off a high measures 1.618 of the last leg of the old trend, it's highly probable the larger degree trend has changed from up to down.

To show you how reliable this calculation can be, check out the following chart of crude oil (Figure 11.10). The 4.23 extension of the second, or B, wave caught a low on the 34th day of the pattern. This has been an incredibly vicious downtrend, but even in the face of a large move, the chart still bounced. Now, if you went long for anything more than an intraday trade, you would have ended up getting stopped out. You are going to get stopped out! But this is an extreme situation and most times the situation isn't as acute. More often than not, that 4.23 extension will at least give you a decent countertrend bounce. This is the case in a previous Dow Transports chart (seen here as Figure 11.11). This chart gives you a variation on how to measure these calculations. Common Fibonacci practice, when it comes to triangles, is to measure the widest part of the triangle and take that as your thrust measurement from the end of the triangle for a good target for the end of the move. We covered that concept much earlier, but we also stated it does not work well when the triangle is a B wave as opposed to it being the fourth wave.

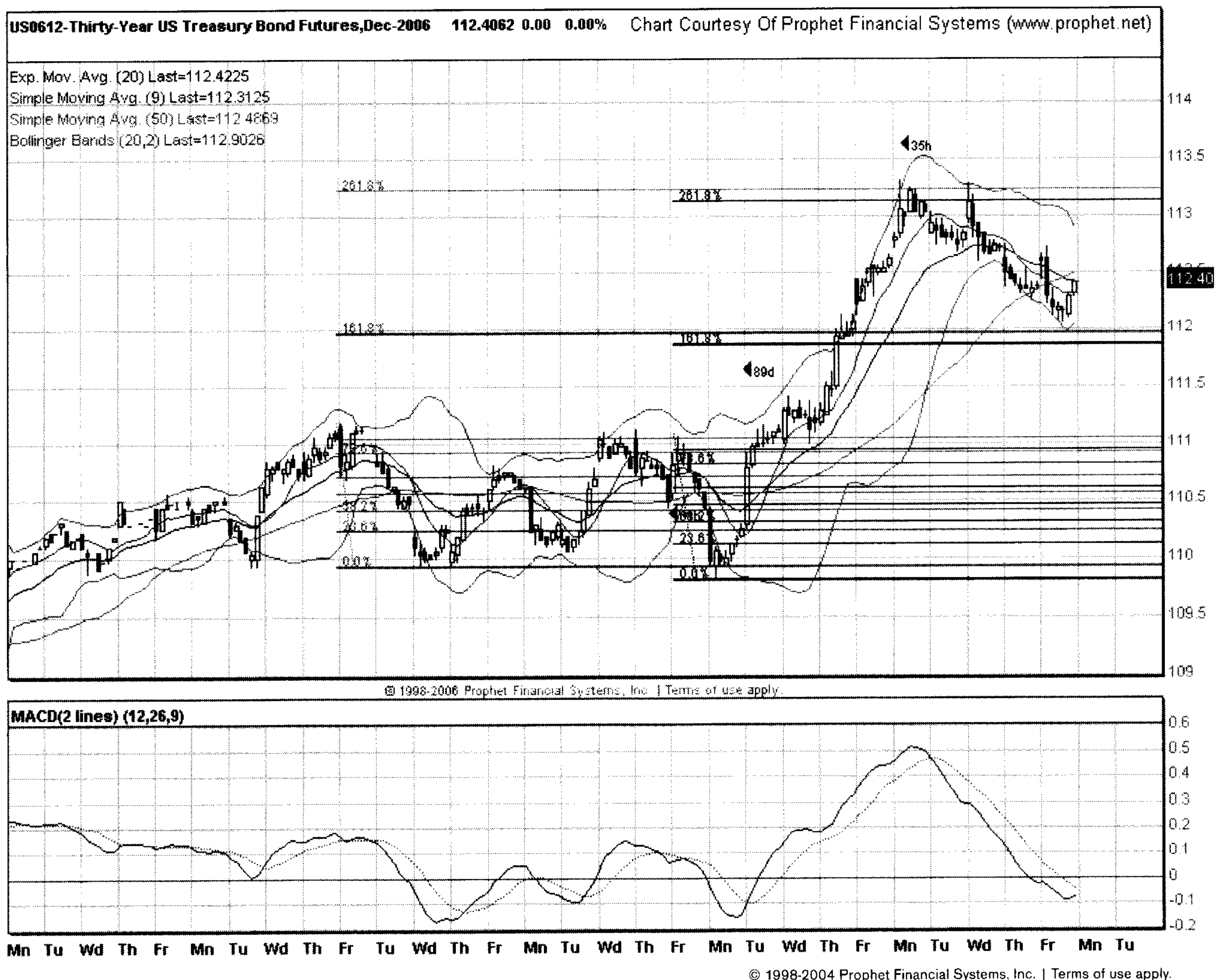
In Figure 11.11, we measure the beginning of the triangle not to the low but to the end of the triangle. From there, you can see the various extension points, and a chart that eventually tops right on that 4.23 extension line. As opposed to what you just saw on the crude oil chart, the 4.23 point did yield a very decent



trading move in the other direction. This chart has waves that are difficult to count but the 123rd day off the April low and 262nd day at the high should help.

While we are talking about this chart, I want to introduce another high-probability situation to help you from getting caught going short at the bottom of the first wave of a new pattern. Follow the green extension lines near the top. What we do is measure the very last leg of the old uptrend to get a decent target for the first wave bottom of the new trend. As you can see, the 1.618 extension of the very last leg up is a good target for a first wave bottom. We see this on many charts. This knowledge will do two things for you. First, it will keep you from going short in the face of a countertrend retest of the high. Second, when you get a first or A

**Figure 11.12**  
Bond hourly 2.618 extension



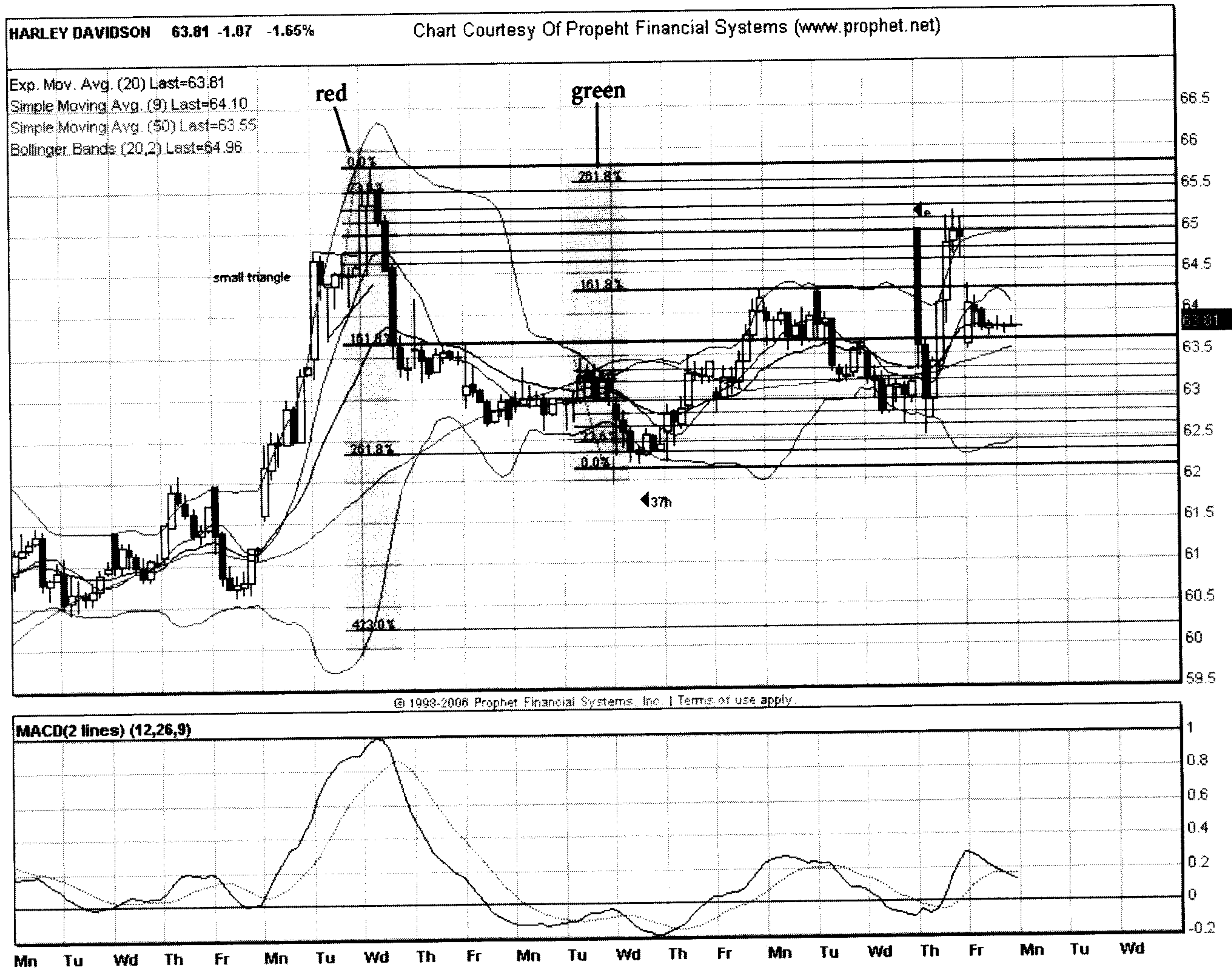


wave down, that measures precisely 1.618 of the last small leg up, this is an incredible pattern-recognition change point. As opposed to pullbacks that continue the trend, when you see a leg that has these measurements, it's your clue the prior pattern has ended and a new pattern has begun. Simply put, when a drop off a high measures 1.618 of the last leg of the old trend, it's highly probable the larger degree trend has changed from up to down.

Bond, Hourly

Our final chart to exhibit the concept of measuring extensions off corrections is illustrated on this bond hourly chart (Figure 11.12). Here is an-

**Figure 11.13**  
Harley Davidson, hourly extension  
of final leg up



other case of an ABC flat correction in an uptrend where the extension caught the top of the move. Finally, the last leg measured 35 hours. This leg has continued down to the 110 area since this chart was placed in this book. Realize that when we are watching these charts in real time, we don't know if the action is going to the 1.618, 2.618, or 4.23 extension.

Once the price action surpassed the 1.618 extension at 112 on the way up, probabilities shifted for it to head for the 2.618 extension at 113. Of course, in the heat of the battle a certain amount of patience is required to stay with a trade like this, especially if the move is choppy. If you were long here, in all likelihood, you would have kept a trailing stop, and the market would not have taken you out. Also, the moving averages were not challenged in a strong move. Another observation on this chart is that everything lines up except for the divergence. We also have a double top situation. Notice how the MACD does retreat in the face of the second high. You would have to scale down to a 15-minute chart to catch a good MACD divergence. Of course that also means you would have to take this trade on a shorter time scale, no matter what ended up happening.

## Harley Davidson

Here are some more examples of what happens when we measure the final leg of a pattern against the start of a new trend. Figure 11.13 is an hourly chart of Harley Davidson. Check out the action on the final small leg up where I've annotated a small triangle. As you can see, there is a large white candle at price point 64.50, which takes us right to the top. As you follow along in the new downtrend, you'll see an A wave complete right near the red 2.618 extension line of that small final leg up.

You may be asking why didn't it bottom at the 1.618 extension line. The answer is that here we are discussing high-probability tendency points. There is no tooth fairy, as I've said any number of times. If you are looking for the 1.618 extension point as an end to the first wave down, you may get it. How will you know? Look at Figure 11.13.

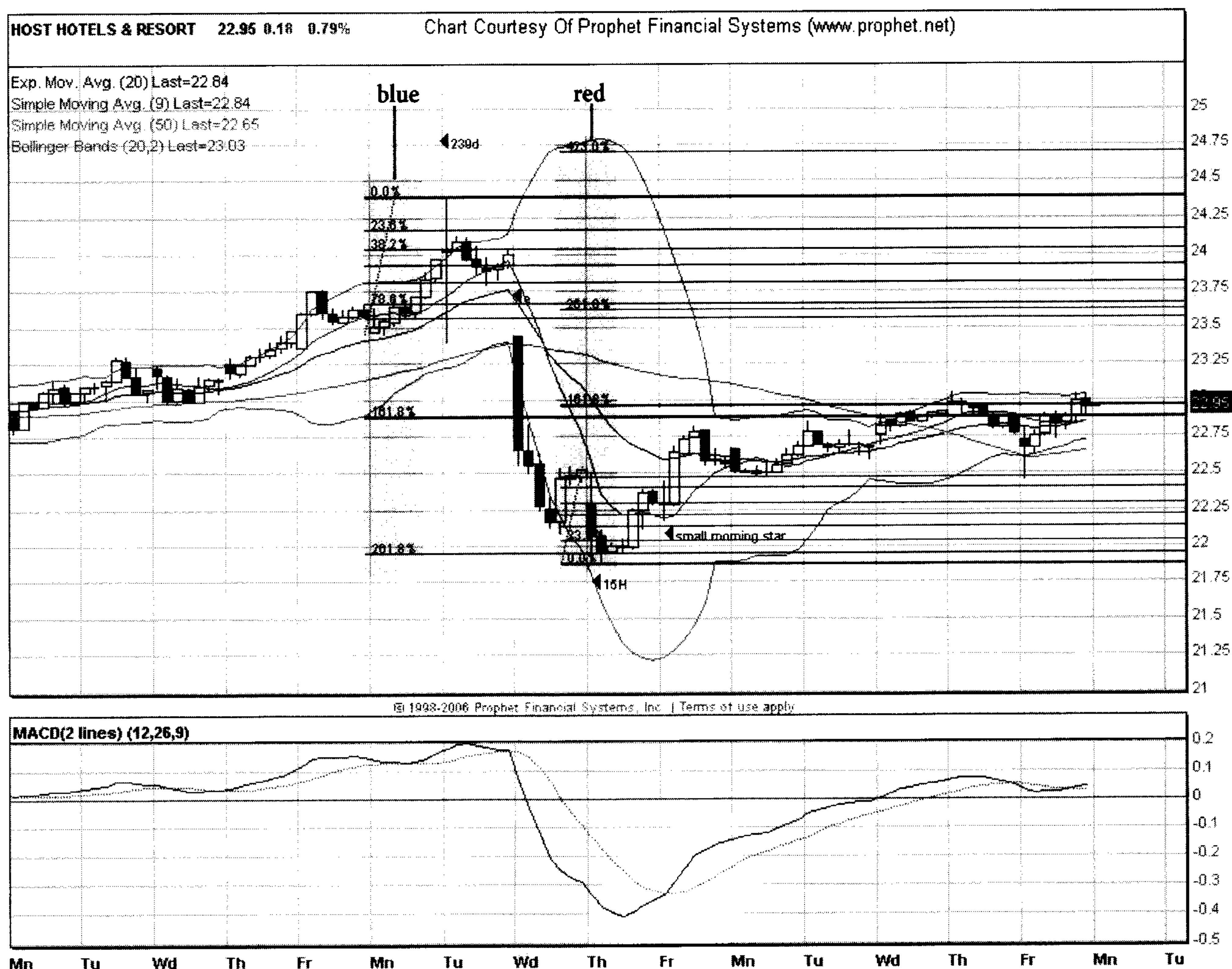
## Remember

Wait for some kind of indication that the chart is respecting the tendency.

Once you hit a cluster of time (37 hours), price (2.618 extension), and candle (morning star), that should be your indication.

Once you hit a cluster of time (37 hours), price (2.618 extension), and candle (morning star), that should be your indication. If you are short, you really need to tighten up your stops and don't give back profits. If you

Hourly of Host 2.618 extension





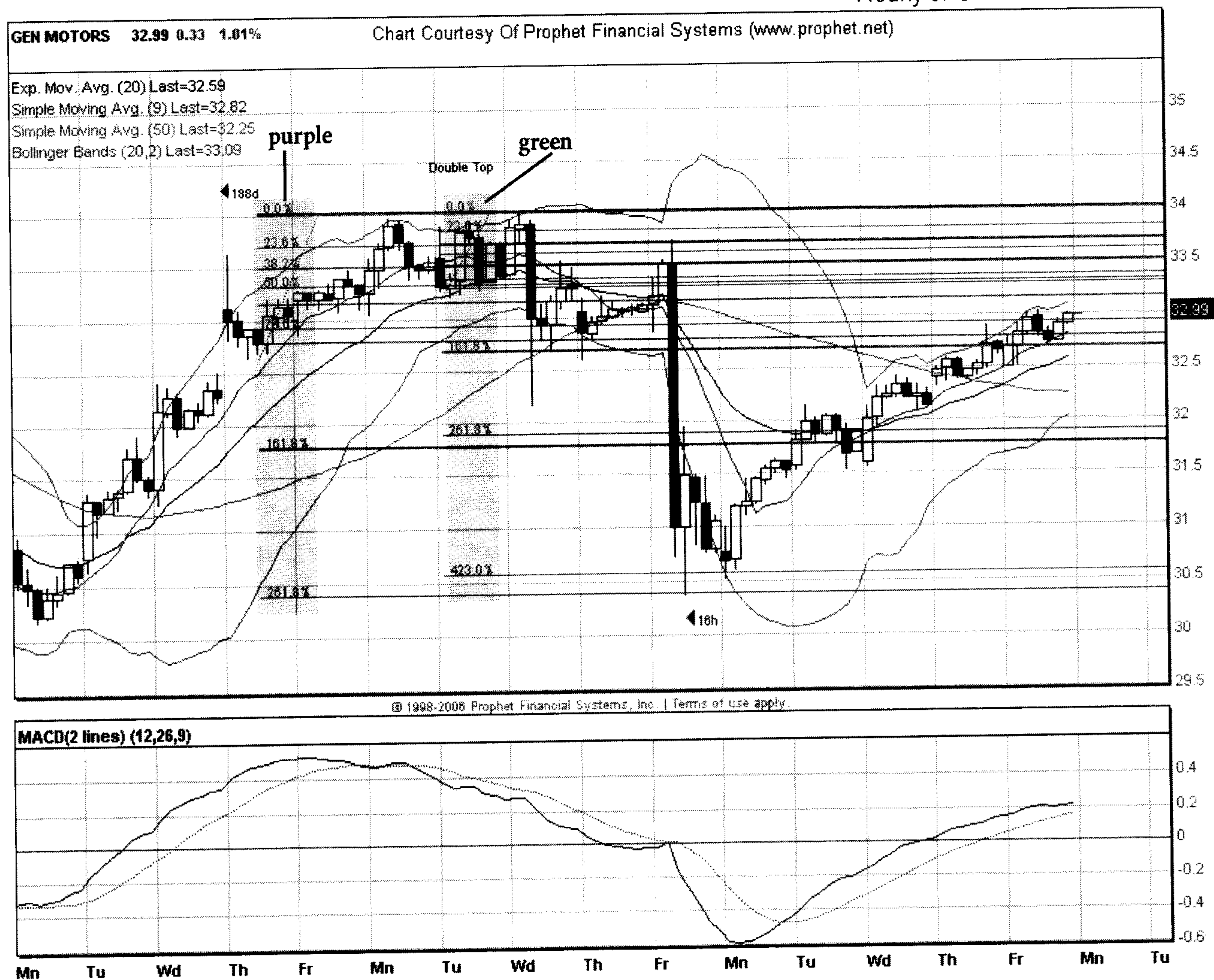
want to go long here for the leg that retests the high, this is your chance. For those of you who were thinking of going short here, forget it. Take this progression one step further and follow the green retracement lines going the other way. We measure the last small leg of the downtrend and the first leg up of the retest hits major resistance at the 1.618 extension point. There is a real small tail, so your entry would be just above the black candle prior to bar 37h. This is just after that morning star completes.

## Host, Hourly

Figure 11.14 brings home the same point. This is an hourly chart of Host. This chart measures the final leg of the uptrend, which concludes on a

**Figure 11.15**

Hourly of GM 2.618 extension





textbook high-wave candle. Just to reiterate, high-wave candles (small body, large tails in both directions) are kryptonite to a prevailing trend. Trends feed off certainty and conviction. High-wave candles imply uncertainty and confusion on the part of participants. Here, a pullback begins and the large black candle blows through the 1.618 extension, and it's obvious it isn't stopping there. If it doesn't stop there, odds are it's headed for the next one, which is 2.618. That is exactly what happens. It hits a low in the 15- to 16-hour window. Three bars up we get a good white candle, and this turns out to be a blended morning star pattern.

Going the other way back up, follow the red retracement lines.

As we measure the final leg down, we also get a 1.618 extension point, which is going to be resistance on the way back up. When it hits that red 1.618 resistance line, it does so on the 34th hour on the way back up. We have a cluster again of price (Fibonacci extension point) and time (34 hours). What is missing here? We don't have a candlestick reversal pattern, so inevitably it retests that line once again. If you are going to take trades at these lines, have as many bullets as possible. Don't be afraid that you are going to miss a setup. There's always another one coming right around the corner, but you do need to have the bankroll to take advantage of it.

### Remember

High-wave candles imply uncertainty and confusion on the part of participants.

## General Motors

Our final example of this concept is an hourly chart of GM (Figure 11.15). You have a virtual double top here because there is a dark cloud cover on Monday at 33.97 and a final high 2 days later at 34. On the time count (not shown), is the first high on the 190th day of the trend (Fibonacci derivative  $189+1$ ) and the double at the 48th hour of the final leg. We are actually measuring the extensions off both final legs (green and purple lines). This is a rather complex situation, and I'm putting it here because I've given you enough easy setups to recognize, and more often than not, the market gives you something more complex to deal with. You'll know what to do if you want to participate.

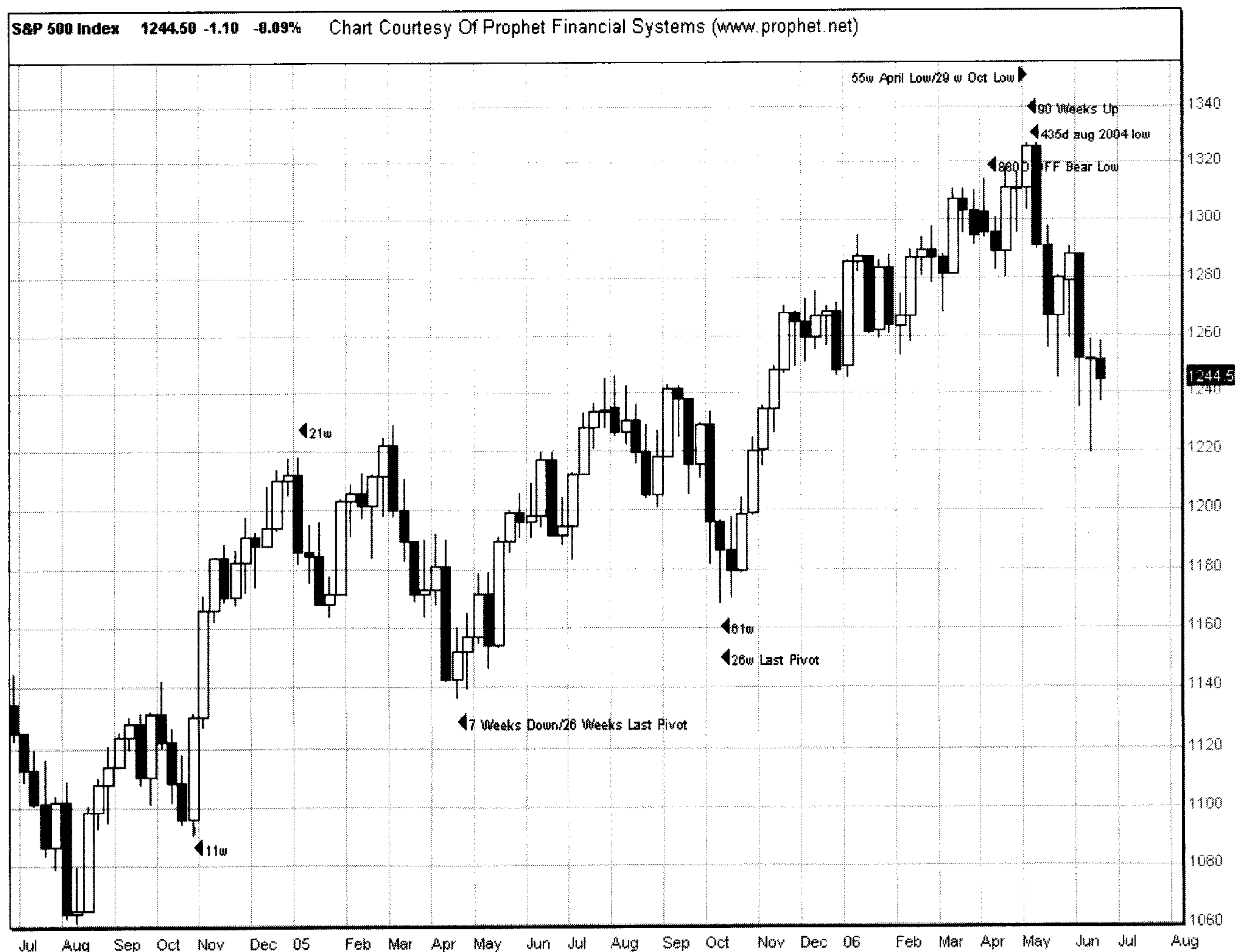
In this case, the market elects to bottom on the 2.618 extension, which is the purple line off the first final leg up. Look at how close that 2.618 extension is to the green 4.23 extension lines drawn off the second and final high. Once the trend reverses, you need to draw these extension lines and wait for the price action to come to you. Finally, the entry for the short is just below that last white candle on Wednesday as that big black candle develops.

The key to making these advanced Fibonacci extension techniques work is patience. You have to be willing to let the chart come to you. What's the best way to do this? Develop a watch list of 10 to 15 charts ahead of time and keep populating that list. It's like a Ferris wheel. Some charts will be ready to take you for

### Remember

The key to making these advanced Fibonacci extension techniques work is patience. You have to be willing to let the chart come to you.

**Figure 11.16**  
Weekly of S&P 500

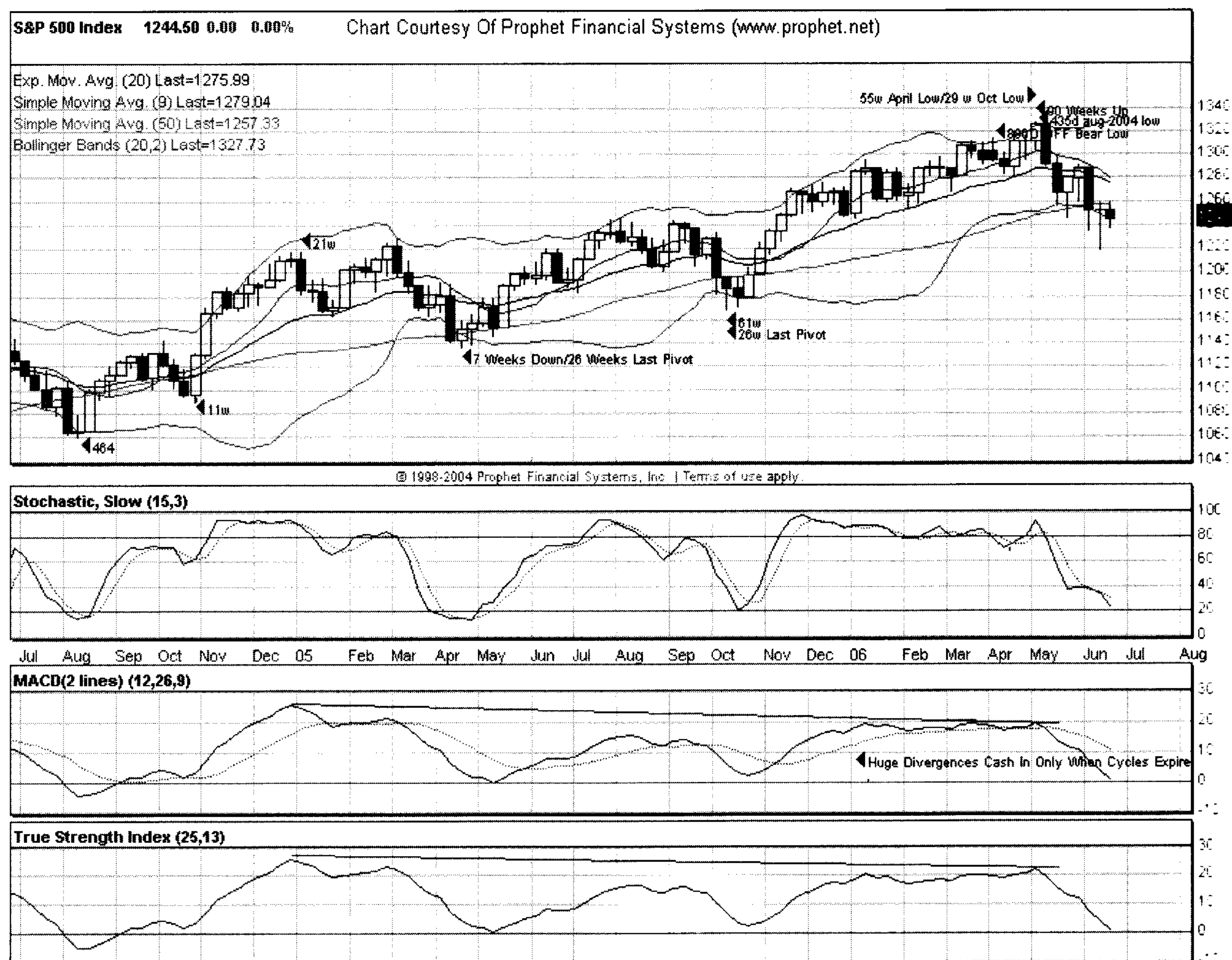


a ride right away and others will require you to wait for the wheel to go all the way around.

What happens if you are waiting on a chart to get to 1.618 and it keeps going? Wait for it to get to 2.618. What happens if it doesn't reverse at 2.618? Wait for it to get to 4.23. What if it still doesn't reverse? Forget about it and go on to the next one. What if it reverses somewhere between 1.618 and 2.618? Without a greater inspection of the chart, I'd urge you to take a pass. Odds are its just spiking temporarily and will take you out eventually. The only way you would take a trade like that is if you have a perfect time bar and candlestick reversal pattern. Remember, markets will

**Figure 11.17**

Weekly of S&P 500, with technical indicators





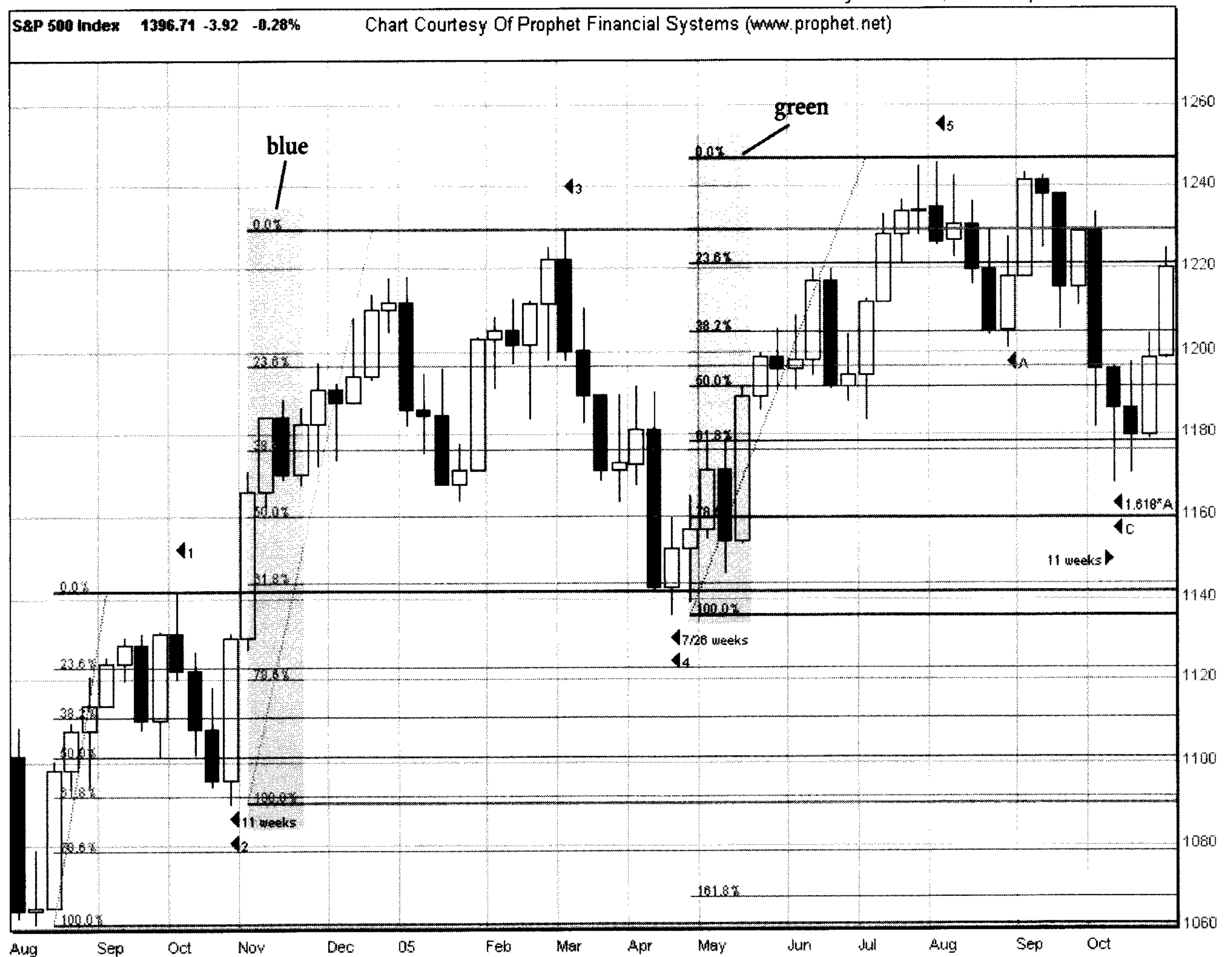
do whatever they want whenever they want. They don't have to follow these tendencies. What I'm showing you in this chapter are the highest probability tendencies that are going to give you the best chance to win. You want to give yourself the greatest opportunity to win and profit every time you pull the trigger.

## BUYING DIPS, SELLING RALLIES

As we've seen in the chapters on wave rotation as well as the section on O'Neil's *Investors Business Daily*, these cycles offer you an opportunity to understand the unique rhythm of financial markets. What you want to

**Figure 11.18**

Weekly SP 500, close up of the action





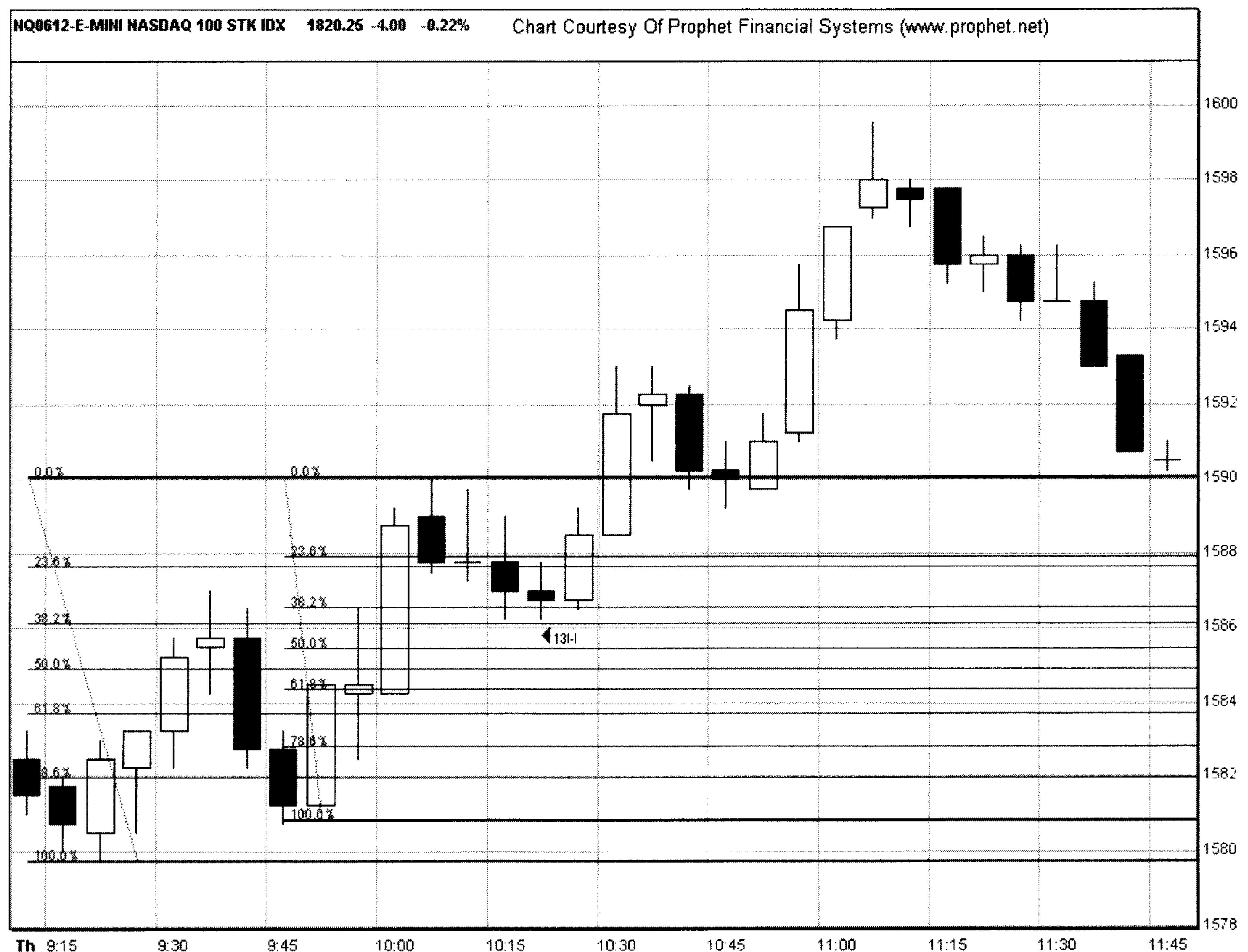
do is exercise a good degree of patience. The best thing to do is wait for a cluster of time bars on a high-to-high or low-to-low cycle. It's best to also wait for a candlestick signal that tells you the price action is actually respecting that time window.

## S&P 500

Here are two weekly charts of the S&P 500 (Figures 11.16, 11.17). Figure 11.18 is a close-up of the action. Take them one at a time and see how the concepts work together. Once again, these concepts relate to all time frames. We have an excellent progression off a very important pivot low back in August 2004. The first dip ends on an 11-week, low-to-low cycle,

**Figure 11.19**

NASDAQ E-mini 5 minute Fibonacci cluster

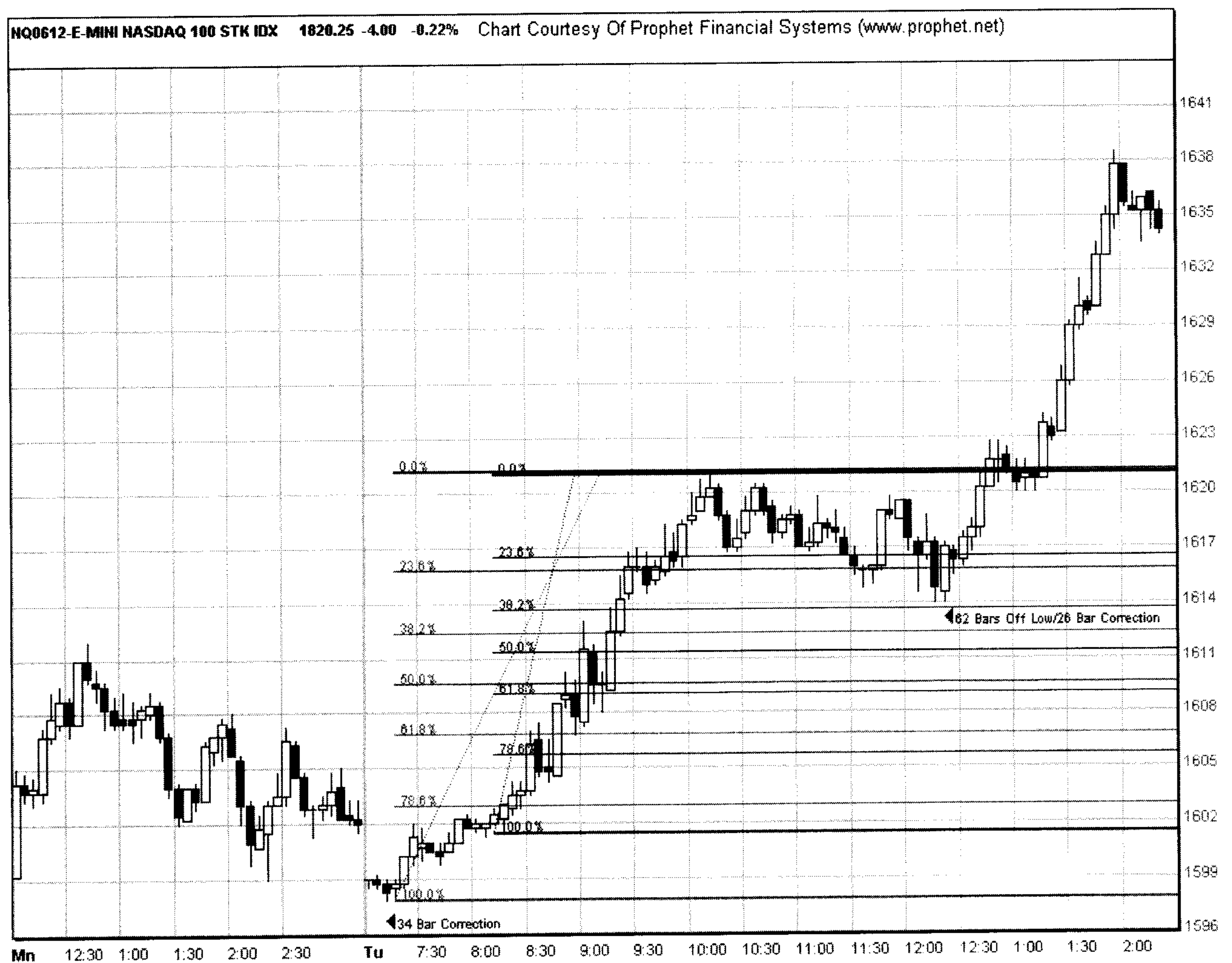


but the buy signal would be the time cycle combined with that big white candle. Your entry should be where the white candle clears the black from week 10.

The next buy opportunity is after a 7-week correction, which ends in a harami pattern. This 7-week pullback also clusters with a larger 26-week, low-to-low cycle off the last major pivot. Is it a requirement that you also have that cluster? No, but you increase your odds exponentially if you have a combination of two time periods coinciding, and then you get that good candle going in your direction. Where is the entry? It's a difficult harami with a small white bar against a large black candle. The best thing to do in those situations is to scale down to a daily time frame. The next opportunity comes as we hit a low on the 61st week of the pattern, which is also 26 weeks off the last pivot low. This also ends an 11-week correction. You

**Figure 11.20**

NASDAQ E-mini, twin 38% cluster



have all of that ammunition in your favor right there but no buy signal yet. Two weeks later on the 63rd bar, you get that nice white candle, which is your confirmation that you should pull the trigger.

Now that you've seen how the time bars work, check out the Fibonacci price retracements. There are three separate situations. The first one off the low retraces 61 percent of the first wave up. The second acceleration pulls back to retrace slightly more than 61 percent of the move from the wave 2 low. The third pullback (green lines only) retraces slightly beyond 61 percent of the move off the April low, but the wave calculations of the ABC down are, such that  $C = 1.618 * A$  as measured from the B wave high.

I've shown you this on two separate charts because I want you to think in terms of price retracements and in terms of time. These are the kinds of situations you want to look for. Often, you'll get some combination of these signals, which are not perfect, and you may get stopped out once or twice attempting to shoehorn your way into a trade.

Just as a reminder, because we've seen this chart before, compare and contrast how these time cycles line up with moving averages professional traders are following. We'll get to a strategy utilizing moving averages shortly, but you can see how well the time bars complement the ability to buy the dip. These charts give the trend following moving average crowd an opportunity to see how their methodology works with the Fibonacci price and time discipline. Likewise, the Elliott/Fibonacci crowd gains a fresh prospective on how the trend-following crowd looks at the situation. The time bars are the unique language of the market and help both viewpoints.

## NASDAQ E-Mini

The next chart, the NASDAQ E-Mini, is a similar concept (Figure 11.19). All we are doing is combining the price and time elements. We go from the weekly to the intraday time scale. In this case, we have a simple ABC progression to the upside. What we do is draw the price retracements from both pivots. In bullish moves, the pullback will subside in the area of the 38 percent retracement level. Here we have a cluster of two 38 percent retracement points.

The time element is important for the following reason. If you are working with 5-minute charts, you know how fast the action goes and how easy it is to make a mistake due to emotions. It's an uptrend, and you want to be in. However, these charts don't have to stop at that 38 percent cluster. What ends up happening is that we'll get to a price cluster and in the absence of a good time bar, the chart will keep going. What I'm advocating here is the confluence of price and time. In this example, we have the 38 percent cluster with 13-bar cycle. It's a very high-probability play. Bar 14 confirms the action with the good white candle. Within the next hour, there is a 13-point move, and depending on the number of contracts you play, this could be anywhere from a \$260 to \$1,300 payday.

Figure 11.20 is another intraday chart. The same concept applies. As you can see we have twin 38 percent clusters as we draw the Fibonacci retracement lines from the two lower pivots. As you can readily see, there are two 38 percent lines. As this pullback begins, do we really know which one the

**Figure 11.21**

Altria Group, daily, trending market contained by 20dma

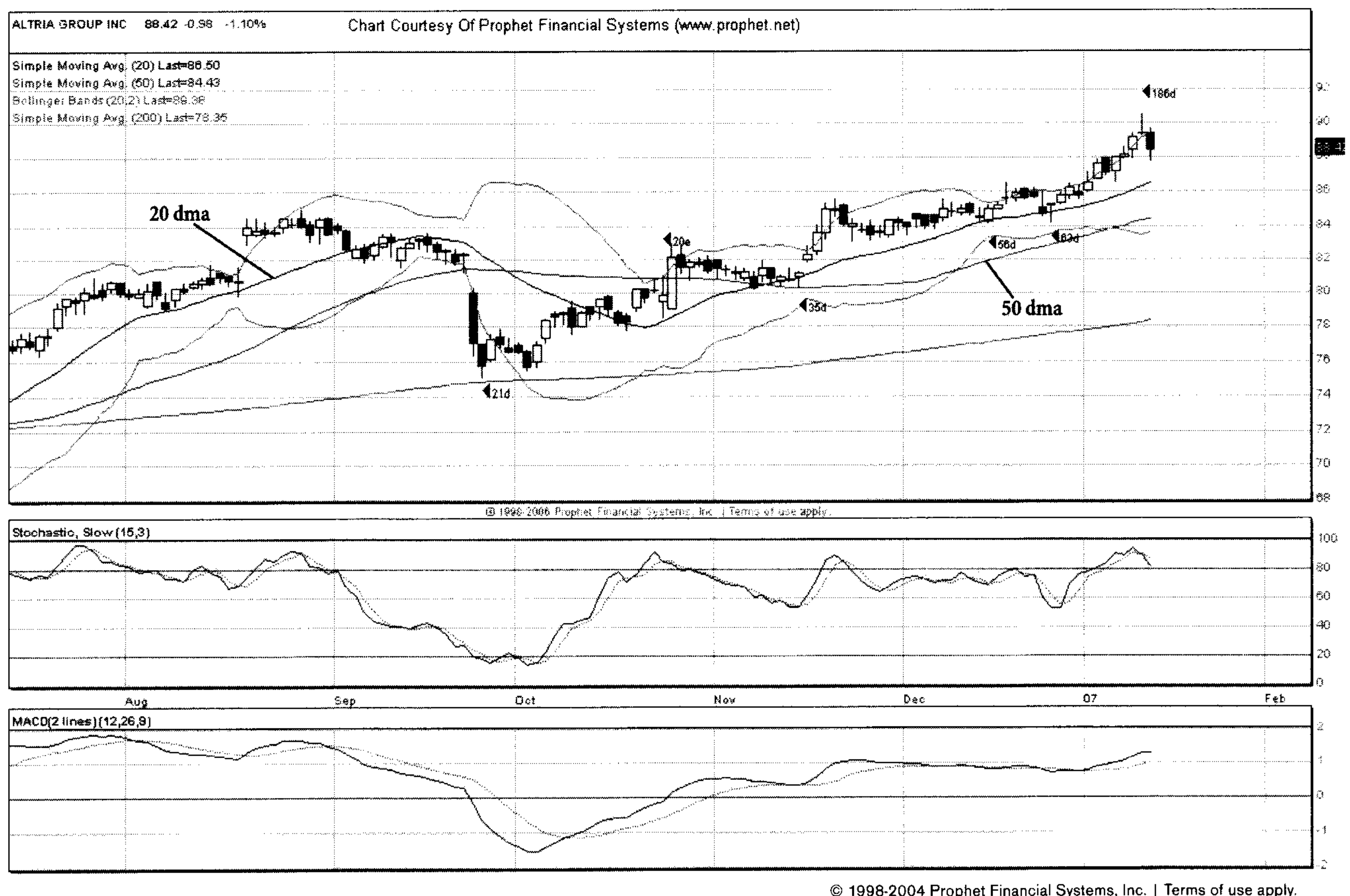


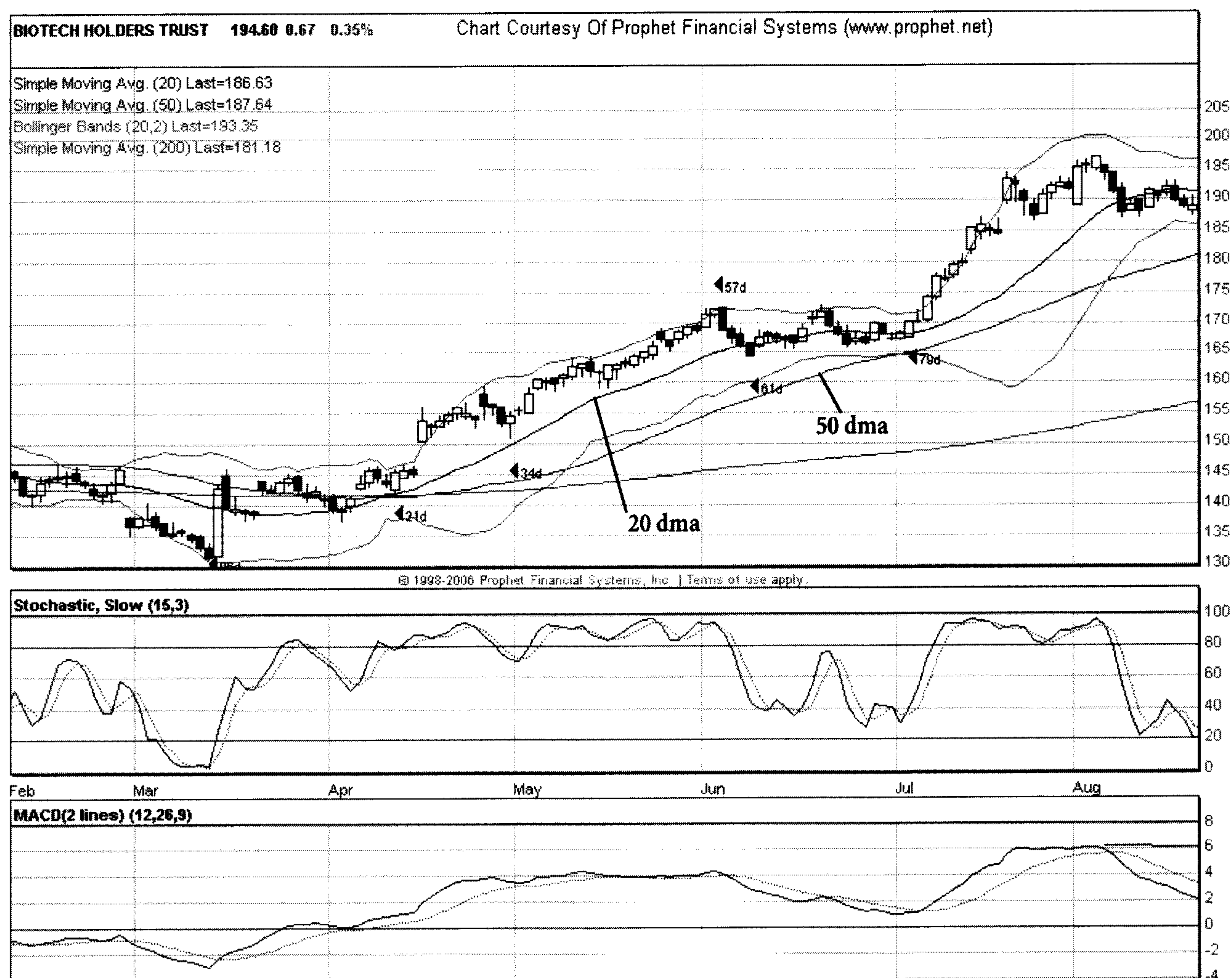


chart is going to elect? Here in this book, we can see what happened, but all I'm really doing is highlighting higher probability tendencies. If you rely exclusively on the price action, you are going to get confused and perhaps won't recognize the opportunity when it presents itself. Candlestick experts even tell you correctly you can't rely on any one particular candle pattern. We covered that in Chapter 4.

Let's look at what happened. We come to the first 38 percent line when we enter the 60–62 bar cycle window. This is why we've spent the whole book discussing the time dimension. We also have that bullish tweezers reversal at the exact right spot. Your entry is right above the high of the black bar of the reversal pattern. Here is a confluence of price, time, and candle formation. When you see this sort of setup, you don't even have to

**Figure 11.22**

BBH, strong trend with 20 and 50 dma



think about it. Your brain should be wired automatically to take action. The time dimension is your high-tendency pattern-recognition tool that confirms the price retracement as well as the candle formation. You don't have to think about it being a fake out. As traders, we want to be able to recognize winning situations and be able to take action.

On the flip side, traders have a tendency to act in the wrong place at the wrong time because they don't have a good pattern-recognition methodology in place, so they act out of emotion. That is precisely what leads to losses. When you get a series of losses, your confidence wavers and then goes away altogether. So does the bankroll along with your career as a trader. And, that's exactly what I'm trying to prevent!

## BUYING OFF CORRECTIONS

These last few charts give you a strategy of how to buy off a correction or a dip. They are simple in the fact that all you have to do is draw the retracement lines and keep track of the bars. There is usually one higher probability spot on the chart that you can recognize. In strongly trending markets, the high-probability tendency is for the action to retrace 38 percent. There is also another simple way to buy the dip/correction.

### Altria Group

Many traders follow two moving averages to define a trend. The 50-period moving average is excellent but the 20-period moving average is also very good in the short term, as we discussed earlier. Some people like to use an exponential; others, a simple moving average. The various charts in this book suggest that there isn't a big difference. Here, we are concentrating on the bars anyway. The moving averages are used because visually there are fewer calculations.

On this daily chart of Altria Group (Figure 11.21), there was a 21-day correction, which completed in September. This is a strongly trending stock, which pulled back into the 20dma on the 35th day of the leg. The next day there was a gap up, which was the buy signal. Although I haven't included it on this chart (for the benefit of trend followers), the 35th day small correction ends on the 38 percent retracement of the move up to that point. Notice how the trend progresses and the action pulls back to

the 20 dma on the 56th and 63rd days. Those of you in Australia also have a slightly different version of the Altria Group on the Sydney Exchange, but the principles are the same.

## **Biotech HOLDRs**

We've seen this BBH chart several times in this book. For ease of visibility, I've added the 20 and 50 dma (Figure 11.22). In a strongly trending market, the action pulls back into the 20-period moving average on the 21st, 34th, 61st, and 79th time bar. Each one of these situations offered an opportunity to buy the dip. We spent a lot of time discussing what to do when there is a MACD divergence. Here's the high-probability play in a clean trending environment without the divergence. The 34 bar into the moving average is also the 38 percent retracement off the early April secondary low of this trend.

I've shown you several conditions in this chapter. Markets are so dynamic as patterns change from one day to the next, as well as from one wave to the next. When we come to an important pivot, market conditions will change on a dime. What worked yesterday may not work today or tomorrow. However, the principles in this chapter are timeless. I've given you price and time retracements. We discussed common Fibonacci calculations and advanced/uncommon calculations. We combined and worked with them separately. Finally, I also have given traders from the different disciplines a fresh perspective on how the other side does things. Whichever style you use, the time bars will enhance your pattern-recognition capabilities. Whichever method you use, here are simple strategies for you to pick off tops/bottoms with greater confidence. You will also have more confidence in working with trending markets.

# 1 2 | CONCLUSION

As you leave me and go on your own, be confident that you are prepared to deal with most of the market conditions you will ever see. In sports, championship teams need to be flexible and play different styles against different opponents. They constantly need to make adjustments on the fly. The teams that are able to adjust win championships. The teams that don't adjust never get the big prize. You can adjust to changing market conditions. You can play the retracement game on pullbacks and the divergence game to pick tops and bottoms. You can also use the advanced calculations to project longer term targets. Finally, you can also recognize a moving average cluster with the time calculations for very-high-probability trend-continuation signals.

We've come on a very long journey, and if you are still with me, congratulations! If you've read this book through without paying too much attention to the charts, you need to go back and study them one by one. Take as much time as you need. This is the kind of book you'll come back to repeatedly. Every time you go over these charts, you'll learn something new. Every time you go over these charts, you'll pick up something you



didn't see the last time. You'll come to these charts and apply them in real time to your favorite charts.

What you will find is that the more you practice, the better you'll get. Your results are going to be in direct proportion to the due diligence you put into this project. If you reached this point after weeks of studying these charts individually, I'm really proud of you. What you now have is one of the finest pattern-recognition systems on the planet. As you know, it's not perfect because markets will do whatever they want whenever they want. We can't control nature, but we can control ourselves. Here, I've attempted to greatly improve on existing methodologies in technical analysis. Twentieth Century technical analysis is very good, but it has many holes in it. We've reduced the margins for error. Hopefully, I've reduced the number of times you'll get stopped out because now you will recognize the highest probability setups.

For those of you who are new at this, you've learned the true nature of how financial markets really work right from the beginning. I wrote this book a step at a time, building on Fibonacci and Elliott concepts that many of you have learned elsewhere. These still work, but they don't work as often as others have told you. Over the years, I've found glaring holes in common Fibonacci and Elliott methodologies. I think the Elliott community has done a decent job of presenting the basic structure of financial markets. But in the 21st century, we need to do better.

This is why I believe the time cycles are for everybody, not just for the Fibonacci/Elliott community. It's my hope that once you start tracking the bars, you'll have a greater understanding of financial markets to the point that you'll never be able to look at a chart again without the bar count. Once you do that, I hope you'll be very profitable and achieve all of your goals. Let me know how you are doing.





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## GLOSSARY

**bear phase:** A cycle for the overall market or a specific security in which prices achieve a new high, then pull back to level below the mean or moving average for the period being tracked before rebounding back to the initial high. Also known as a high-to-high cycle.

**bear market:** A prolonged period during which stock or bond market prices decline sharply and investors develop a growing level of pessimism; the opposite of bull market. Stocks are generally considered to be in a bear market when prices fall by 20 percent or more, with the move usually triggered by expectations of a faltering economy and, as a result, shrinking corporate profits. Although generally shorter in duration than bull markets, a bear market may last months – or even years.

**Bollinger Bands:** A device employed by technical analysts to measure the volatility of a market or security and determine levels of support and resistance. A moving average of prices is first plotted on a chart, then additional lines, or “bands,” are plotted two standard deviations above and two standard deviations below that moving average. This defines a trading channel, which is wider when volatility is high and narrower when vola-



tility falls. When current prices approach the upper band, the market or stock is assumed to be overbought, and when they near the lower band, they are said to be oversold.

**breakdown:** A bearish move in which prices penetrate a strong level of support, thereby triggering additional sharp declines. Breakdowns often signal a trend reversal and mark the beginning of a prolonged downward move or outright bear market.

**breakout:** A bullish move in which prices break through a strong level of resistance, often a prior high or declining trendline, triggering additional advances. Breakouts often signal a reversal from a bearish trend or the end of a consolidation phase, and mark the beginning of a significant rally or outright bull market.

**bull market:** A prolonged period during which stock (or bond) prices are rising at an increasing rate amid a climate of growing investor optimism; opposite of a bear market. Bull markets for stocks are generally triggered by increasing economic activity or falling interest rates, both of which tend to promote rising corporate earnings and profits.

**bull phase:** A cycle for the overall market or a specific security in which prices make a new low, then rally above the mean or moving average for the period being tracked prior to falling back again to a level near the initial low. Also known as a low-to-low cycle.

**candlestick charts:** A style of chart used by technical analysts to plot security price movements over a given trading period, ranging from 10 minutes to a full trading day. displaying the high, low, opening, and closing price. Originated by Japanese rice merchants, candlestick charts are used both to identify price patterns and construct trend lines, showing a stock's opening price, high, low, and closing price for the specified time period. The graphic used to pictorially depict the prices on the chart is called a candlestick because it resembles an actual candle, with a rectangular vertical box (or "real body") that connects the opening and closing prices, and "wicks" (or "shadows") that extend from the rectangles to show the extreme highs and lows. If the stock moves higher for the period, the candle's body is white, but if the stock closes lower, the candlestick is plotted in black.

**clusters:** Also known as Fibonacci clusters, these are technical indicators used to define major levels of support and resistance on longer-term charts showing a number of distinct price movements, either bullish or bearish, and subsequent retracements of those moves. Clusters are usually found on the side of price charts and are represented by horizontal bars with various degrees of shading, with a new bar created each time a retracement overlaps the level of a prior retracement. As more and more overlaps occur, the shading of the bars grows darker, with the darkest bars of the Fibonacci cluster indicating the most significant levels of support and resistance.

**complex sideways correction:** A generally flat pattern found on hourly stock charts in which prices trace out an extended series of see-saw movements of roughly equal length and magnitude.

**correction:** A temporary drop in the price of a stock or the overall market that interrupts an extended rise in prices. Unlike bear markets or crashes, corrections typically entail relatively small percentage price moves – 10 percent or less – that occur gradually over a moderate length of time. In strong uptrends, corrections are sometimes considered to be healthy, giving the market time to “catch its breath” before resuming its climb. As such, investors often view corrections as an opportunity to buy at more favorable prices.

**corrective waves:** One of the two basic wave patterns practitioners of the Elliott Wave Principle look for in analyzing stock price trends. Corrective waves move counter to the primary trend, which can be either bullish or bearish.

**cup-and-handle pattern:** A series of price movements that trace out a chart pattern resembling a cup, with a downward handle extending to the right. The pattern features a short-term top, followed by a gradual retracement that makes a shallow but extended bottom, leading into a modest rally back to the prior short-term high and then another moderate decline. The pattern is usually considered characteristic of base-building periods.

**double bottom:** A chart pattern created when a downward trending stock makes a low, rebounds, then falls near the same low and rebounds once again. A double bottom pattern, which resembles a “W,” is viewed by technical analysts as a sign that a stock has tested an important support

level and, having made a low, is now poised for a strong upward move. However, a break below the support line created by a double bottom pattern is considered extremely bearish. Opposite of a bearish double top pattern, in which prices movements trace out an “M” on the chart.

**Dow Jones Industrial Average (DJIA):** The oldest continuing U.S. stock market index and the most widely quoted – though not the most representative – indicator of market performance. The DJIA is composed of 30 large, well-known industrial stocks with leadership positions in various market sectors, all of which trade on either the New York Stock Exchange or Nasdaq Stock Market. Created by Wall Street Journal editor and Dow Jones & Co. founder Charles Dow in 1896, the DJIA is a price-weighted average, meaning an \$80 stock has more impact on the index than a \$25 stock.

**Dow E-mini:** An electronically traded futures contract created and administered by the Chicago Board of Trade. The futures price tracks the movements of the Dow Jones Industrial Average, but the contract is valued by multiplying the current DJIA index level by \$5 – making it one-fifth the size of the standard DJIA future, which is valued by multiplying the index level by \$25.

**downtrend:** A series of declines in the price of a security or the market as a whole. The pattern can be short term, lasting less than a day, or extended, covering days, weeks, or even months. Regardless of the duration, the trend is defined by a series of lower closing prices, as well as a zigzag pattern of successively lower highs and progressively lower lows. An extremely prolonged and severe downtrend – bleeding away 20 percent or more of the market’s value – may be classified as a bear market. Opposite of an uptrend.

**Elliott methodology:** A system of analysis of investment market cycles based on Elliott Wave Theory, which was devised in the 1920s by Ralph Nelson Elliott based on social science trends and the study of mass psychology, which was popular at that time. Elliott’s goal was to find an organizing methodology that would explain and predict the otherwise chaotic movement of the stock market. According to his findings, every bullish market cycle – regardless of length – progresses in a price pattern featuring five upward- and three downward-moving waves, although no two patterns are ever exactly alike. In a bear market the dominant trend

is downward, so the pattern is reversed – five waves down and three up. Wave Theory has gone in and out of favor numerous times in the years since Elliott's work, but its popularity has risen somewhat with the advent of more effective computer analysis of pricing patterns.

**ending diagonal triangle:** Part of the Elliott methodology, this pattern is created by drawing trendlines along a price range that gets narrower over time because of lower tops and higher bottoms, this giving it the shape of a wedge. It is the only pattern in Elliott Wave analysis that is still considered an impulse wave even though it allows an overlap in price movements.

**Fibonacci numbers:** A sequence of mathematical ratios used in technical analysis to assess the likelihood that a stock will retrace a large portion of an initial price move, find support or resistance at a specific level and then continue its move in the original direction. The key support and/or resistance levels in any move are determined by drawing a trendline between two extreme points and then dividing the vertical distance by the key Fibonacci ratios of 23.6%, 38.2%, 50%, 61.8% and 100%. In addition to retracement ratios, other widely used Fibonacci studies – named after Leonardo Fibonacci of Pisa, who first undertook them in the early 13th century – relate to patterns known as arcs, fans, and time zones.

**Fibonacci Series:** A series of numbers where each number is the sum of the previous two, except for the first two numbers (example: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34). Widely used in technical analysis to estimate the probable extent of price moves and likely points where reversals may occur.

**flat:** A pattern of security or market price movements that shows neither a rising nor declining trend.

**Flow state of mind:** From the field of psychology, a functional mental state in which a person tunes out all distractions, fears and anxieties and becomes fully immersed in what he or she is doing in order to perform to his or her highest potential. With respect to stock trading, it's where you focus your energies to fully translate what you've studied and practiced into real-time trading success.

**Forex market (FX):** The global financial market in which exchange rates are established and world currencies are traded among individuals, financial institutions and government agencies. The foreign exchange market,



which operates 24 hours a day, six days a week, is the largest financial arena in the world, with a daily trading volume now approaching US\$3 trillion.

**Gartley pattern:** Based on Fibonacci ratios and popularized by Larry Pesavento, this is a complex pricing pattern used to determine optimum buy and sell points by measuring the retracements of up and down movements in a stock's price.

**Harami cross:** A two-period candlestick chart formation in which a candle with a large body is followed by a candle with a smaller body that falls entirely between the top and bottom of the original candle. Generally considered to be a signal that the trend in force is about to change, or reverse, a Harami cross can be either bullish or bearish, depending on the direction of the previous trend.

**holographic resonance repatterning:** A self-improvement methodology that assumes all individuals are vibrating at a certain resonance, or wave pattern, similar to those found in radio frequencies. Practitioners suggest that, through the use of certain therapeutic modalities such as light and sound, an individual's negative resonance patterns can be disrupted and then replaced with vibrations that are compatible with the achievement of a person's current goals in life.

**intraday:** Any activity or pattern of price movements that takes place within the course of a single day or market trading session.

**impulse waves:** One of the two basic patterns Elliott Wave theorists look for in analyzing stock price trends. Impulse waves reflect the strong moves in a stock's price coinciding with the main direction of the underlying trend, either upward or downward. Impulse waves are not limited to any specific time period and can thus last anywhere from several hours to several years – or even decades. However, regardless of length, they always follow the direction of the primary trend.

**Lucas Series:** A series of numbers very similar to the Fibonacci series, except the numbers start with 2 and 1, rather than 1 and 1 (example: 2, 1, 3, 4, 7, 11, 18, 29). Also used in determining the probability that a stock or index will follow a strong upward or downward move with a retracement to support or resistance levels.

**MACD (Moving Average Convergence Divergence):** Created by Gerald Appel in the 1960s, it is a combination of moving-average lines and a momentum indicator designed to compare the price fluctuations of stocks, futures and other securities. The MACD plots 12- and 26-day moving averages, then contrasts the two in an attempt to forecast market momentum along what's known as a "signal" line. Crossovers, divergences and dramatic moves along the signal line help identify bullish or bearish tendencies and set up potential buy and sell points.

**morning star:** A bullish candlestick charting pattern that shows one large black candle in the midst of an established downtrend, followed by a small-bodied black or white candle and then a large white candle that closes above the first bar's body. Generally considered an early indication that the downtrend currently in force is about to reverse.

**moving average:** A widely used technical indicator used to show the average price of a stock or a market index over a given period of time, usually ranging from 10 days (short term) to 200 days (long term). Calculated by deleting the oldest closing price for the period being averaged, adding the most recent closing price and then dividing the total of all prices included by the number of intervals, moving averages are used to both measure momentum and define areas of possible support and resistance. Moving averages, which can also be calculated on an exponential or logarithmic basis, can also help emphasize the trend in force and smooth out price and volume fluctuations (or "noise") that can confuse chart analysis.

**The Nasdaq Stock Market:** Originally a computerized system for quoting securities traded "over the counter," NASDAQ (an acronym for National Association of Securities Dealers Automated Quotation system) has grown to become the world's largest electronic stock market, executing hundreds of millions of transactions daily. Started in 1968 and reorganized in 1971, the NASDAQ had a history of listing emerging companies that might not otherwise have had access to capital markets. However, in 1997, listing requirements were significantly upgraded and NASDAQ split into the Nasdaq National Market (NasdaqNM) for large corporations, including some of America's technology leaders, and the Nasdaq Small-Cap (NasdaqSC) for smaller companies. By 2002, in response to SEC concerns over conflicts of interest, the NASD divested itself of all ownership in Nasdaq, which became a publicly traded, for-profit compa-

ny in its own right, with stock trading on the NasdaqNM. In 2006, NasdaqNM became an officially recognized global stock exchange operating under the name The Nasdaq Stock Market.

**Neuro-Linguistic Programming (NLP):** A self-improvement methodology in which individuals are trained to detect, evolve, and focus their conscious and unconscious mental and behavioral processes in order to convert negative thought patterns into more positive and productive ones. Originally developed by studying the patterns of thought and communication employed by highly successful individuals, NLP's goal is to provide *specific "how-to" skills to create change in one's self and assist others in becoming more resourceful and effective. The same goals apply in helping investors develop improved market trading capabilities.*

**Overlap Rule:** A key element of Elliott Wave methodology, this rule states that, for a valid five-wave sequence to occur, Wave 1 cannot overlap Wave 4; otherwise, it will become a three-wave pattern. Technicians consider strict application of the "overlap" rule essential to accurate wave analysis and forecasting since nearly any scenario desired can be concocted if an overlap is ignored, thereby rendering Wave Theory virtually useless.

**pip:** The smallest unit of a given currency – e.g., in the case of U.S. dollars, one cent – or, on the Forex markets, the minimum price change that can be quoted in the exchange rate between a given currency pair.

**pullback:** A decline in the price of a stock or market index from its most recent peak. Such a price movement might be seen as a minor reversal within a prevailing upward trend, signaling a modest weakening in upward momentum. Also sometimes referred to as a retracement when certain mathematical considerations are met.

**Relative strength:** An indicator used by technical analysts to gauge the momentum of a particular stock by measuring its price change over time and comparing it to the change in a major market index, typically the S&P 500. A stock's relative strength is expressed as a percentage that represents how it performs against other securities. For example, if a stock has a relative strength of 60, it has outperformed 60% of the other stocks over a certain period, usually 12 months. Some analysts consider high relative strength a bullish indicator of future price increases, while others view it as a sign that the stock is "overbought" and ripe for a correction. Also called price persistence.



**resistance:** A price level – perhaps marked by a prior high, a trend line or a moving average – through which a stock has difficulty rising. Buying interest may wane and profit taking by short-term traders kick in as stock prices approach recognized resistance levels. However, penetration of a key resistance level is generally considered a very bullish indicator.

**retracement:** A reversal in a stock's price counter to the prevailing longer-term trend. How much of the prior primary move a retracement will cover can be postulated by using Fibonacci analysis to determine the most probable levels of support or resistance.

**risk/reward ratio:** A calculation used by investors to compare the expected return of an investment to the degree of risk that must be undertaken to earn that return. The ratio is calculated mathematically by dividing the investor's anticipated profit by the amount he or she would lose if the price moved counter to expectations. In short-term or mechanical trading systems, the risk/reward ratio can be defined as the profit to be made on a move from the entry price to the target compared to the loss that would be suffered on a move from the entry to the stop-loss point.

**rotation:** In technical analysis, the pattern formed by the price bars in a bar chart as a stock or index moves through various phases of a price cycle – e.g., uptrend, correction, downtrend, consolidation, etc. In broader financial terms, rotation is the movement by investors of money from one or more market sectors or industry groups into other sectors in anticipation of changing economic or market conditions. Also called sector rotation.

**RSI (Relative Strength Index):** A popular price-following oscillator that, unlike relative strength, compares the internal strength of a single security rather than the relative performance of two different issues. A popular method of interpreting the RSI is to look for divergences, such as when the price of the stock is making a new high, but the RSI fails to surpass its previous top. A divergence between price and RSI is generally considered an indication of an impending reversal. The Relative Strength Index ranges from 0 to 100, but usually tops out above 70 and bottoms out below 30. As with actual prices, penetration of support and resistance levels by the RSI can warn of an impending change in trend.



**Sedona Method:** A self-improvement technique that shows individuals how, through a process of self-questioning, to uncover their natural abilities and let go of any painful or unwanted feelings in order to live more effectively in the present moment. A training methodology for traders seeking to improve their self discipline.

**stochastic:** A technical momentum indicator that compares a security's closing price to its price range over a given time period. The model, which is an oscillating indicator, is based on the belief that, as a stock price increases or decreases, its closing prices tend to accumulate ever more closely to the highs or lows for a given period. The indicator's sensitivity to market movements can be reduced by adjusting the time period or taking a moving average of the result.

**stop point:** A specific price level at which an investor plans to liquidate an existing security position in order to cut off growing losses, or a price level that represents a probable breakout, signaling that a security is now worth purchasing. Also called a cutoff point.

**S&P 500 (Standard & Poor's 500 Stock Index):** An internationally recognized index of 500 leading corporations in a broad cross-section of U.S. industries. Although focusing primarily on large-capitalization companies, the S&P 500 is widely regarded as the best single gauge of the American stock market, and an ideal proxy for total market performance with over 80% coverage of U.S. equities.

**support:** A price level – usually marked by a prior series of lows, a trend line or a moving average – below which a stock has difficulty falling. Selling pressure may ease and buying interest develop as stock prices approach recognized support levels. However, penetration of a key support level is generally considered a sign of further bearish movement.

**technical analysis:** A method of forecasting prices of stocks, bonds, futures, indices or other financial instruments based on chart patterns, price and volume movements, and numerous other indicators such as open interest, moving averages, oscillators, and cycle analysis. The theory underlying technical analysis is that any influence on the market is already reflected in current price levels – the so-called Efficient Markets Hypothesis (EMH). Technical analysts believe that prices move in trends, that history repeats itself that and the market discounts everything.

**time resistance:** A resistance level or zone that is graphically represented on charts by a vertically angled line. Time resistance zones are typically established when prices are at or near new highs or lows, making it difficult to accurately project Fibonacci retracements. In such cases, prices may fall just sort of key retracement levels, but still turn on a Fibonacci time cycle.

**trend:** The general direction in which the overall market or the price of an individual stock is moving. Trends can vary in length from intraday to intermediate to very long term. As a general strategy, it is best to trade with trends since trends in motion tend to stay in motion – and in the same direction. Thus, the market axiom, “The trend is your friend.” By the same token, it’s wise to be very cautious about taking positions that rely on a trend reversal or price movements counter to the prevailing direction.

**trend line:** A chart formation created by drawing a straight line that connects two or more price points and then extends into the future to act as a line of support or resistance. The price points typically represent a series of rising tops, rising bottoms, declining tops, or declining bottoms. A breakout or breakdown through a trendline is generally considered to be a reversal signal.

**True Strength Index (TSI):** A technical momentum indicator that helps determine overbought and oversold conditions in a stock. The TSI is a variation of the Relative Strength Index that utilizes exponential moving averages (EMA) to compare stock prices and project potential reversal points. TSI readings range from –100 to +100, with values of –25 and +25 typically indicating pending reversals.

**uptrend:** A series of price increases by a security or the market as a whole. The pattern can be short term, lasting less than a day, or prolonged, covering days, weeks or even months. Regardless of the length, the trend is defined by a series of higher closing prices, as well as a zigzag pattern of progressively higher highs and higher lows. An extremely prolonged and dynamic uptrend – adding 20 percent or more to the market or security value – can be classified as a bull market. Opposite of a downtrend.

**Wave Principle:** Also known as the Elliott methodology, this is a pattern-recognition system widely used by technical analysts. Although no two patterns are ever alike, all of which have repeatable tendencies involve a

precise number of upward and downward waves. Inside these primary and corrective waves are universal calculations that are measured in terms of price and time. Elliott based his wave principle on the premise that collective investor psychology (or crowd psychology) moves from optimism to pessimism and back again. These swings create patterns that can be evidenced in the price movements of a market, and can therefore be predicted with a reasonable degree of accuracy.

**whipsaws:** When a stock makes a sharp move in one direction – either up or down – then abruptly reverses. Investors frequently lose money, or get “whipsawed,” when they buy a rapidly rising stock just before a downward reversal or selling a falling stock just prior to a sudden upturn. Whipsaw movements tend to punish active traders by throwing off misleading buy or sell signals, as well as longer-term investors who “chase the market.”

# INDEX

## ABC corrections

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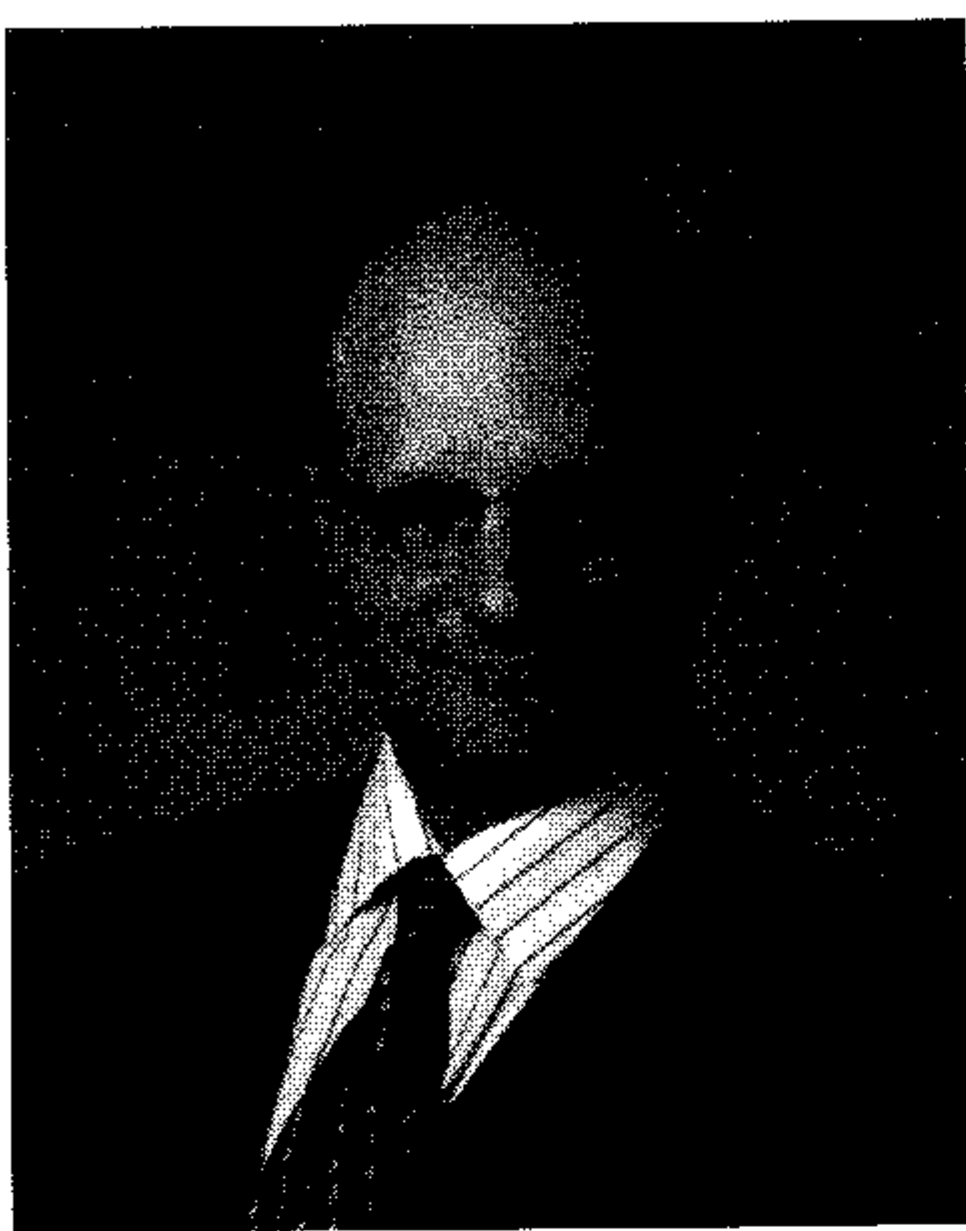
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*Jeff Greenblatt, a private trader for the past eight years, is the editor of The Fibonacci Forecaster, a market timing letter with circulation to traders and money managers in 17 countries that covers stocks, bonds, precious metals, currencies, and the crude oil market. A regular contributor to Futuresmag.com and Futures magazine, he has also published articles in Your Trading Edge magazine from Australia and The Trader's Journal from Singapore. He speaks at various trading conventions and has been featured on KFNN 1510 Financial News Radio.*



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